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ABSTRACT

These 19 papers present the voices of researchers and their work on Professional Development Schools: (1) "The Status of Early Theories of Professional Development School Potential" (C. Mantle-Bromley); (2) "Implementing and Researching Teacher Education Programs in PDSs: A Focus on Authenticity" (Gay Goodman); (3) "Village of Learners: Collaborative Research at a Professional Development School" (Dorothy V. Craig); (4) "Building an Inquiry Oriented PDS: The Journey" (Nancy Fitchman Dana and Diane Yendol Silva); (5) "Professional Development Schools and Special Education: How Can We Help Each Other Meet Our Goals?" (Margaret P. Weiss and Daniel J Boudah); (6) "Paradigm Pioneers: A Professional Development School Collaborative for Special Education Teacher Candidates" (Barbara C. Glaeser, Belinda D. Karge, Judy Smith, and Christine Weatherill); (7) "Professional Development Sites and Student Teaching Placements" (Myrna D. Cohen and Janice L. Nath); (8) "Studying Preservice Teachers Immersed in a Paideia-Focused Professional Development School Experience" (Barbara Levin); (9) "Using Video Reflection in the Preparation of Preservice Teachers" (Norene Lowery); (10) "Interprofessional Training and Service Provision in a Professional Development School" (John P. Galassi, John Brantley, Gary Shaffer, and Barbara Myers); (11) "How an Integrated Unit Increased Student Achievement in a High School PDS" (John Fischetti and Ann Larson); (12) "Principals as a Learning Community: A Case Study" (William Malloy); (13) "Learning from Each Other in a Professional Development School Collaboration" (Karen Higgens); (14) "An Introduction to Teacher Preparation at Holt High School: One View from the Partner University" (Tom Bird); (15) "Holt High School's Professional Development Initiative" (Mary E. deWolf and Dean Manikas); (16)

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FORGING ALLIANCES IN COMMUNITY AND THOUGHT

RESEARCH IN PROFESSIONAL DEVELOPMENT SCHOOLS

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EDITED BY

IRMA N. GUADARRAMA
JOHN RAMSEY & JANICE L. NATH

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A VOLUME IN RESEARCH IN
PROFESSIONAL SCHOOL DEVELOPMENT

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Forging Alliances in Community and Thought

A Volume in
Research in Professional Schools Development
Series Editors: Irma N. Guadarrama, John Ramsey, and
Janice Nath, *University of Houston*

Forging Alliances in Community and Thought

edited by

Irma N. Guadarrama
University of Houston

John Ramsey
University of Houston

Janice L. Nath
University of Houston–Downtown

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INTRODUCTION

The collection of papers in this volume represents our initial efforts in presenting the voices of researchers and their work on Professional Development Schools (PDSs). As editors of this volume we do not presume to have the absolute final cut of research papers that collectively represent all of the work completed in the field across the nation. However, in light of the fact that relatively very little has been researched and reported about PDSs and in consideration of their significance in the teacher education, we are proud of the papers selected for readers to examine and use to deepen our understanding of PDSs and thus, facilitate our improvement efforts. In the first phase of our editing role, we grappled with common questions that seemed to obstruct our attempts to convey a clear-cut vision of PDSs and their function. Namely, we expected the research papers to follow a traditional format and to foreground an undisputed and clean definition of a Professional Development School. The fact that none of the papers in this volume focus on that concept or even the controversy surrounding the nature or function of PDSs suggests that other more pressing issues or concerns are at stake. Indeed, the authors seem to take on a definitive perspective that assures us that our ultimate priority lies in the improvement of not only teacher education but in the quality of education for all students. In fact, as we completed our final selection of papers, we realized that, despite the focus on PDSs, most of the papers primarily addressed progressive, educational reform efforts of which university and school partnerships and PDSs are centerpieces.

The concept behind the Professional Development School is relatively new among educational research agendas. Many authors in this volume make reference to the published work of the Holmes Group in 1986 that gave impetus to the PDS movement. It was several years after the report was published before the PDS became a concept that could be described and defined. The notable, successful gains made in the evolutionary process of

PDSs should be credited to practitioners, i.e., the teacher educators, teachers, school and university leaders, and graduate and pre-service students, who have worked diligently and courageously within the field on a day-to-day basis. It is this common grassroots experience that has guided us in our role as editors in the development of this volume. Between the three of us we total about 75 years of experience in working with pre-service and in-service teachers at the university and school levels. As colleagues, we have worked together in our university's field-based program for seven years. We have extensive, first-hand experiences in shaping PDSs and in learning from the multitude of lessons wrought by the demands of collaborative, intensive work and our determination to overcome obstacles in achieving our goals and objectives. Through our collegiality we have managed to preserver in our PDSs despite the many problems posing as obstructions and barriers, typical of the kind that many other teachers and teacher educators have experienced and as described in several of the volume's papers.

This volume was developed as a result of our work with the Professional Development School Research SIG of the American Educational Research Association (AERA). Some of the papers selected for this volume began as working papers that were later presented at the annual meetings of AERA. We are indebted to all of our authors for their contributions and patience in working with us. Our hope is that we continue to generate interest among researchers to report their PDS research in subsequent volumes.

The chapters are organized around three parts. Part I frames the theoretical and historical background of PDSs; Part II chapters focus on the myriad of contexts by which university teacher educators and school faculty and staff collaborate within a PDS in pursuance of teacher excellence and/or student academic achievement; and Part III concludes the volume with chapters that propose solutions and recommendations to problems and issues.

Even readers who claim to be current on the latest research literature on Professional Development Schools will appreciate the broad and in-depth information shared by authors Mantle-Bromley and Goodman in the first part. Both chapters target the essential as well as the controversial, even obstinate, issues commonly familiar to PDS researchers and practitioners. Goodman's chapter draws our attention to the close connection between PDSs and school reform. Describing a well-defined school reform in relation to the Holmes Group vision as "authentic," Goodman's chapter illuminates the fact that PDSs provide platforms by which school reform principles are enacted.

The second part, profiling PDSs in operation, reflects the mixed bag of research reports that made up the majority of papers we received during the initial, paper-selection process. Craig's chapter stresses that the quality of collaboration is key to a successful PDS, a recurring theme throughout most of the chapters in this part. Dana and Silva's chapter discusses the important but difficult task of constructing a PDS framework based on the idea that the process is indeed a journey that requires informed decision making every step of the way.

Even though Chapters 5 and 6 focus our attention on the field of special education, the discussions in each are slightly different in dimension. Weiss and Boudah argue that special education specialists have much to offer to the rest of the learning community while Glaeser, Karge, Smith, and Weatherill engage in discussions on how the PDS and whole-school connection leads to school improvement. Particularly noteworthy is Glaeser et al.'s discussion on how their model leads to substantial differences or "second-order" changes.

The authors in Chapters 7, 8, and 9 designed their studies around questions pertaining to pre-service teacher education. Cohen and Nath question whether pre-service teachers should remain in their PDS sites to continue their student teaching or should they instead acquire experience in a different site. Their results reveal some surprising observations. Levin's chapter enlightens readers on Paideia principles and, according to research, how they have a positive effect on student achievement. Levin's study focused on the impact of the Paideia principles on school reform in a PDS context. Lowery questions how PDS content-area instructors can effectively guide their pre-service teachers using video reflection strategies. The results are convincing enough, and the pre-service teachers' narratives provide us with additional insights into their thoughts and concerns as fledglings in their profession.

In Chapter 10, authors Galassi, Brantley, Shaffer, and Myers, discuss their work in developing one of the most unique models among clinical or case management approaches in meeting the needs of students and their families. The collaboration among three university programs, namely, school counseling, school social work, and school psychology, focuses on university students who teamed up with the experts and developed a multi-service model in a PDS in a rural school district. Like Galassi's et al. chapter, Fischetti and Larson's chapter discusses a unique practice that holds promise for educational improvement, for PDSs and school reformists in general. Their focus is on how university/school collaboration facilitates interdisciplinary teaming among high school teachers in a PDS. Their critical observations on how high stakes assessment makes costly demands on the PDS is not unlike those made by educators among school reform circles.

Malloy's study magnifies the changing role of the principalship, an inevitable step in a school system that has assumed the enormous challenge of including PDSs as part of their reform efforts. Readers who are cognizant of the current discussion on the roles of school administrators will find a familiar ring among the author's strong messages, i.e., a principal's development of a vision is only half the journey. It's the process of shaping and re-shaping the vision within a learning community that determines the extent to which this leadership role is effective.

Higgins' chapter captures the learning dynamics among those collaborating within a PDS: the university educator, cooperating teachers in the PDSs, pre-service teachers and the children. Higgins' narrative style is both engaging and effective, particularly in the featured case study of a cooperating teacher's actualization process, as examined through the framework adapted from the 1997 publication, *Women's Ways of Knowing.*

The next four chapters comprise the collective efforts of one PDS and its partner university. The authors' perspectives are indeed unique in their representation of the key players in the enactment of a PDS/university partnership. Bird's chapter delivers a solid, university partner perspective of the complex and detailed work involved, especially by the university educators, who are often challenged by their new and demanding roles and must deal with their own professional survival in an environment steeped in tradition and "old system" politics. De Wolf and Manikas discuss their challenges as educators in the PDS; Rickard's view as an intern provides us with important insight; and Siebert's narrative on the role of the university instructor is engaging and thought-provoking. It's important to note that these chapters represent excerpts from a large collection of several papers that are far more comprehensive in scope and detailed in information.

The final part includes two chapters, both of which are based on rigorous research designs and resulted in generating a rich data source. Su's chapter is based on an evaluation of the collaboration between a PDS and its partner university. The preponderance of data and the author's quality discussions render this study important not only for its research design but for the unique window of opportunity to examine the conflicting perspectives of various players from the PDS and its partner university. Rice and Afman use a meta-ethnographic design to examine multiple qualitative studies, analyzing these through a systematic and interpretative lens. Both chapters offer recommendations for improvement based on their findings.

Our final thoughts as editors can be succinctly summed up in a few words: we have so much more to learn about PDSs. Our hope is that this volume conveys an important message to the readership, that as long as we support the research efforts of practitioners in PDSs and their partner universities, we will continue to share our knowledge and make substantial educational improvements along the way. As indicated in the title of this volume, *Forging Alliances in Community and Thought,* we can advance forward only when we work together as a learning community.

Part I

EXPLORING THEORETICAL PARADIGMS AND CONTEXTUALIZING THE PROFESSIONAL DEVELOPMENT SCHOOL

CHAPTER 1

THE STATUS OF EARLY THEORIES OF PROFESSIONAL DEVELOPMENT SCHOOL POTENTIAL

Progress of Four Settings across the United States

Corinne Mantle-Bromley

ABSTRACT

Four predictive program theories of school-university collaboration described by early advocates in the 1980s were examined through this cross-case analysis of four independent Professional Development School (PDS) case studies. Survey data, individual interview data, focus group interview data, and informal observation data from nine collaborative PDSs in four different settings were analyzed independently for each setting and then compared across settings. Surveys were distributed to all teachers and administrators at each PDS, all university personnel working at each PDS, and all pre-service teachers participating in field experiences at each PDS. A total of 310 surveys (return rate of 48% overall) became one source of data. A total of 72 interviews of 130 PDS participants became the second source. Informal observation of classes (both school and university), review of documents, and informal conversations became secondary sources of data. Data analysis supported one of the four predictive theories (that of improved preparation of new teachers) but failed to support a second theory of increased professionalization of teaching. Conditions deemed necessary for the realization of the two remaining theories—improved regularities of schooling and of teacher education programs—were insufficiently embedded in the PDSs to determine the theories' validity.

INTRODUCTION

Approximately fifteen years have passed since public schools' and universities' education faculties were urged to consider the symbiotic possibilities of together preparing new teachers and schooling the nation's youth. John Goodlad's seminal work on schools (1984), followed by an equally persuasive critique of new teachers' preparation (1990) urged school and university educators to design and implement programs that would, according to Goodlad, simultaneously improve schooling and teacher preparation while providing ongoing impetus for renewal of both. During this same time period, school/college of education deans from the nation's research institutions convincingly called for closer collaboration between schools and new teacher preparation (Holmes Group, 1986, 1990). This same call came from the Carnegie Forum, an independent foundation-supported task force (1986). These leaders' persuasive arguments resulted in what is now commonly referred to as the Professional Development School (PDS) or partner school, a place where, theoretically, pre-service teachers, practicing teachers, and university educators work together, "constantly reviewing and improving the whole" (Clark, 1999, p. 4).

The struggles and pitfalls of implementing intensive school-university partnerships are well documented (for collections of program documentation, see Darling-Hammond, 1994; Levine & Trachtman, 1997; Osguthorpe, Harris, Harris, & Black, 1995). Descriptive narratives regularly detail the labor-intensive nature of collaboration, the difficulty of eliminating historic hierarchies, and the failure to adequately compensate involved school and university participants. Benefits to collaboration are also documented in the program descriptions listed above, primarily reporting improvements in cross-institutional relationships and teacher preparation and increases in teachers' opportunities for reflection. Rarely, however, have educators examined school-university collaboration from theoretical perspectives, especially those that first led to PDS implementation.

In fact, a primary purpose of PDSs—to more closely connect educational theory and practice—has been largely ignored in PDS research and evaluation. More common are what Chen (1990) calls black box evaluations, where inputs and outputs are examined "without concern for the transformation processes in the middle. Such simple input/output evaluations may provide a gross assessment of whether or not a program works but fail to identify the underlying causal mechanisms that generate the treatment effects, thus failing to pinpoint the deficiencies of the program for future program improvement or development" (p. 18).

PDS literature presents a discomfiting number of black box evaluation examples. Educators commonly claim teacher preparation and schooling improvements without linking stated outcomes to specific program elements or clearly described program theory. Nuebert and Binko (1998), for example, conclude from quantitative ratings of both PDS and non-PDS student teachers that "the PDS internship was more effective than the regular program in preparing teacher candidates to maintain classroom discipline, use technology effectively for instruction, and reflect on their teaching" (p. 46). Unfortunately, we don't know if these outcomes resulted from increased motivation of pre-service teachers whose PDS participation was voluntary, from team teaching by school and university instructors, from the classroom observations and discussions, from peer coaching, or from service projects. The findings supported continuation of the PDS without helping educators better understand which elements of this particular PDS model were instrumental in program improvements.

The examples are common: Hall (1996) claimed PDSs a success and based the claim primarily on successful implementation data (the program was up and running) rather than on outcome data. Campbell, Strawderman, and Reavis (1996) reported improvements in students' reading skills and school attendance, and reductions in failure rates, without directly or even indirectly connecting these outcomes to the PDS's specific program elements. Kochan and Kunkel (1998) concluded from survey data that their PDSs had improved pre-service education, based solely on participants' beliefs that pre-service teachers benefitted from "being exposed to teaching on the front lines" (p. 331). They further claimed improvements in P–12 education because participants indicated that collaborative efforts expanded students' potential for success (p. 330). The PDSs described in these studies likely result from labor- and time-intensive work and in all likelihood deserve support for their efforts to improve schooling and teacher preparation. Their evaluations, however, do little to help us expand the knowledge base on teaching, learning, or critical elements of successful PDSs.

There are, of course, theory-based PDS studies that contribute to increased knowledge about PDSs. Yerian and Grossman (1997), for example, compared PDS and non-PDS pre-service teachers, finding significant positive differences in PDS pre-service teachers' (a) attitudes and perspectives toward middle school students, (b) confidence levels, and (c) abilities to understand the tensions between theory and practice. Yerian and Grossman increased the credibility of their findings by controlling for extraneous variables, using both survey and structured interview methods, and explicitly stating the program theory they were testing. Additionally, they carefully acknowledged that their study did not test whether the PDS pre-service teachers were better teachers, which was beyond the scope of their data. Basing their study on program theory, Mantle-Bromley, Gould, McWhorter, and Whaley (2000) found that pre-service teachers who spent a semester in a PDS prior to student teaching were more likely to seek a teaching position and remain in teaching than were pre-service teachers whose primary exposure to schools occurred during student teaching. Zeichner and Miller (1997) found that PDS relationships facilitated their ability to tailor experiences to individual pre-service teachers' needs, resulting in individual instances of pre-service teachers' growth. They cautioned, however, that the changes being shown in their study and in the broader literature did not necessarily indicate better teaching and learning.

Often, reported "outcomes" merely represent implementation progress: Teachers in PDSs talk more about teaching, school and university faculty form valued relationships, pre-service teachers work more closely with teachers and students. Actual outcome data, however, are sparse. In fact, little has changed from Howey's (1996) observation: "We are not close to a thoughtful program of research across individuals and across PDS sites relative to teaching and learning. The research agenda in the evolution of PDSs has been slow in forthcoming and nominal in scope. In many instances, it simply does not exist" (p. 181). Unfortunately, Howey's conclusion does not stand alone (see Abdal-Haqq, 1998; Arends & Winitzky, 1996; Book, 1996; Fullan, Galluzzo, Morris, & Watson, 1998).

In setting forth necessary conditions for a PDS to effect ongoing renewal of schooling and teacher preparation, Clark, too, suggests that PDSs may have merely provided new names for unchanged practice: "Professional development schools," he says, "are vulnerable to claims that they are shams" (1999, p. xxiv). His chapter on PDS evaluation stresses the importance of identifying stakeholders' values and beliefs, and of formative evaluation. To be of use, he says, data needs to provide feedback that is then used for reflection and program improvement. Clark's recommendations parallel those of Chen, who urges use of program theory for program evaluation. He defines program theory as "a specification of what must be done to achieve the desired goals, what other important impacts may also be anticipated, and how these goals and impacts would be generated (1990, p. 43).

Black box evaluation (including much of the research and evaluation of PDSs), on the other hand, ignores theory. Program theory (what must occur to achieve specified goals) is rarely made explicit, program components are not carefully examined, and outcomes are not often tied to program components. Chen (1990, p. 19) highlights the limitations of atheoretical evaluation, particularly when programs fall short of desired outcomes: "Does failure imply that the theory on which the program is based is incorrect? Or is the failure due to a problem with implementation? Or is the strength of treatment too low? Or is the measurement of the treatment effect not sensitive enough?" Evaluations typified in PDS literature have failed to help us systematically identify those aspects of PDSs that are critical to a program's successes or those aspects of theory that are inaccurate or incomplete.

The following study of nine PDSs in four school-university collaboratives across the United States was designed to create a theoretical starting point for future research on and evaluation of PDSs.

THE STUDY

The overall purposes of this study were to (a) make explicit the early program theories advocating PDS implementation, (b) determine the degree to which the early theories of PDS potential had been realized, and (c) determine the conditions that either led to or inhibited such realization.

THEORY BASE

The works of John Goodlad (1984, 1988, 1990), of the Carnegie Forum (1986), and of the Holmes Group (1986, 1990) provided prescriptive or normative theories of change—informed beliefs regarding what could or would happen if schools and universities joined efforts to improve schooling and the preparation of new educators (see Chen, 1990). Each group viewed school-university collaboration as a vehicle for change, albeit for somewhat different reasons. Goodlad (1984, 1988), for example, believed that schools' existing cultural norms were so strong that new teachers merely replicated the status quo rather than introduce new practices that could improve schooling. Collaboration held the most likely possibility for symbiosis, where two unlike organisms would mutually benefit from a relationship. For ongoing improvement to occur, Goodlad explained, people must have opportunities to infuse their own work with the expertise of those engaged in similar work and with those viewing the work from alternative—even countervailing—perspectives. The differences between experience-based teachers' perspectives and those of theory-based university participants would provide the catalyst for ongoing questioning of each others' practice, leading to continual renewal of both. Goodlad wrote:

> A major reason for promoting partnerships that include at least one university is that schools (or school districts) and universities differ not in degree but in kind. . . . Herein lie both the promise of a productive school-university partnership and the sandtraps, swamps, and quicksands standing in the way of a successful marriage. (1988, pp. 13–14)

For Goodlad, school-university partnerships were the vehicle for advancing ongoing renewal of schooling and teacher preparation.

The Carnegie Forum (1986) also viewed collaboration as a vehicle, but a vehicle primarily for the professionalization of teaching. The Carnegie Forum felt that if our nation's children were to attain higher standards of achievement, teaching had to be made more attractive to highly skilled potential teachers. Increased pay, increased use of teachers for instructional rather than non-instructional duties, and career ladders held potential for increased professionalization. They proposed clinical schools, analogous to teaching hospitals, which would provide career ladder opportunities and linkages between schools and universities: "The professionalization of the teacher work force is the key" (p. 107).

The Holmes Group (1986, 1990) was interested in increasing the professionalization of teaching, and improving teacher preparation and student learning. They proposed Professional Development Schools (PDSs) as places where systematic examination and evaluation of practice would occur:

> If university faculties are to become more expert educators of teachers, they must make better use of expert teachers in the education of other teachers, and in research on teaching. In addition, schools must become places where both teachers and university faculty can systematically inquire into practice and improve it. (1986, p. 4)

PDSs would become centers of innovative practice, providing opportunities for teachers and administrators to influence their profession and for university faculty members to increase the relevancy of their work.

The three primary groups advocating school-university collaboration differed somewhat in their overall purposes. Their theories of change, however, were often quite similar. Although not capturing every theoretical premise from the three groups' literature, four major theories of change repeatedly emerged from a review of their work. Conditions necessary for the desired changes also emerged. Table 1 presents these four theories of change, the conditions necessary for such change to occur, and the supporting sources. These four theories of change and the accompanying conditions comprise the theory base for the study described here.

Table 1. Theories of Change Related to Professional Development School Implementation

Theory	*Necessary conditions*	*Source*
1. Programs that prepare new teachers will improve if	a) Field experiences are spread throughout the teacher preparation program	1; 2; 4; 5
	b) Theory and practice are more closely connected	1; 2; 3; 4; 5
	c) Pre-service teachers are supervised by school and university personnel throughout the program	1; 2; 4; 5; 6
	d) A strong support system for pre-service teachers is created	3; 4
	e) The program is collaboratively designed and implemented	2; 3; 5; 6
2. Professionalization of teaching will increase if	a) Teachers' experiential knowledge is acknowledged and respected	1; 2; 5; 6
	b) Teachers are provided opportunities for meaningful professional development	3; 5; 6
	c) Teachers are provided opportunities to create and present new knowledge to others	1; 2; 5; 6
	d) Teachers hold partial responsibility for new teachers' preparation	1; 2; 5; 6
	e) Teachers are provided related opportunities for career advancement	1; 2; 5
3. Regularities of schooling will improve if	a) Teacher isolation is reduced	1; 2; 3; 5
	b) Regular mechanisms for feedback and reflection on teachers' work are created	1; 2; 3; 4; 5
	c) Questioning of routinized practices is increased	1; 2; 3; 4; 5; 6
	d) Use of inquiry/data to inform decisions is increased	2; 3; 4; 5; 6
4. Regularities of teacher education will improve if	a) Education curricula is connected to schools' realities	1; 2; 3; 4; 5; 6
	b) Education research is connected to school-based concerns	2; 3; 4; 5; 6
	c) Regular mechanisms for feedback and reflection on education faculties' work are created	2; 3; 5

Note. Source numbers refer to the following references: 1 = Carnegie Forum (1986); 2 = Goodlad (1984); 3 = Goodlad (1988); 4 = Goodlad (1990); 5 = Holmes Group (1986); 6 = Holmes Group (1990).

DESIGN

Being interested in whether the early theories were realized and if so, under what conditions, and additionally having no control over relevant variables, I determined that case study research would be most appropriate. I eliminated single case study design, useful when a single case meets all conditions for testing program theory or when a unique or extreme case will shed light on theory (Yin, 1994), since neither of these conditions applied. Multiple case design is appropriate when individual sites' program implementation will likely vary. PDS implementation met this criterion. I used what Yin calls a multiple-case embedded case study design because I was interested in studying both the subunits of analysis (individual settings' collaborative efforts) as well as holistic program theory.

POPULATION OF INTEREST

Members of The Holmes Group (1990) and of John Goodlad's (1996) National Network for Educational Renewal or NNER both provided possible populations from which to select cases. Fullan et al. (1998) concluded that the "ideas and principles of reform in both networks were compatible" but that the "NNER had more of an action agenda and expectation for accountability" (p. 44). Additionally, I had more recently worked with NNER settings and thus chose them for my population of study. The NNER's membership comprised 16 settings in fourteen states in the United States; it included 30 colleges/universities, approximately 100 school districts and 500 active PDSs (Clark, 1999).

Using this network of partnerships, I sought nominations of settings with PDSs that met two criteria: First, I was interested in studying mature PDSs of at least five years' standing. Teitel (1998) found that it took at least five years for trusting cross-institutional relationships to develop. If early theories had been realized, the changes would more likely be seen in partnerships that had moved beyond well-documented implementation difficulties. Second, I hoped to study PDSs that were seen as exemplary in some aspect of their collaborative work. Ken Sirotnik (2000) relays a story attributed to Lee Cronbach in a Stanford graduate course on case study methods: "If you're going to study a case of something, study the best possible case of it that you can find. If you wanted to study what a camel was, you wouldn't go out and find one with its hump sliced off; you'd find one that exemplified what a camel should be." Thus, I used both program theory and experiential wisdom to guide my selection of cases, extending an invitation to participate to six settings across the country. Of the six settings, two declined, citing time limitations due to their involvement in a national accreditation study of PDSs—the remaining four became the study's focus.

THE SETTINGS

Working with key personnel at the four settings (located in four distinct regions of the United States), I eventually limited the study to nine of their PDSs. The study included both undergraduate and graduate teacher preparation programs; elementary, middle, and high school sites; Carnegie I and Carnegie II research institutions; and public and private universities. The study resulted in four independent case studies (one for each school-university collaborative setting), three of which included study of multiple PDSs within the collaborative. The individual case studies were returned to each respective setting, where participants were asked to provide feedback on the validity of the findings. Table 2 provides a breakdown of the nine PDSs within the four studied collaborative settings. (It may be helpful to note that several of the NNER settings included multiple colleges/universities. My use of the term "setting" here refers only to the one university and its partner PDSs participating in this study.)

Table 2. Breakdown of PDSs by School Level, School's Staff Size, IHE[a] Program Model, IHE Cohort Size, IHE Research Classification

PDS No.	*Setting No.*	*School Level*	*Certified Staff*[b]	*Program Model*[c]	*Cohort Size*[d]	*Research Level*[e]
1		Elementary	40	U	10	
2		Elementary	40	U	10	
3		Elementary	42	U	10	
Subtotal	1		122	U		II
4		Senior	80	G	12	
5		Middle	57	G	12	
6		Elementary	30	U	15	
Subtotal	2		167	Mixed		II
7		Elementary	30	5th Year	5–10	
8		Senior	131	5th Year	5–20	
Subtotal	3		161	5th Year		I
9		Senior	90	U	25	
Subtotal	4		90	U		I

a. IHE = Institute of Higher Education.

b. Certified staff includes full time equivalency of teachers, administrators, and other school support personnel.

c. U = Undergraduate, G = Graduate, 5th year = Undergraduate + graduate model.

d. Average number of preservice students at PDS varied by semester. These are rough estimates.

e. Carnegie rating of IHE's research activity.

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DATA SOURCES AND ANALYSIS

I visited each PDS for one or two days and each overall setting for a maximum of one week, collecting data from multiple sources. I conducted numerous individual and focus group interviews at each PDS, talking with those participants most involved in the PDS work. I designed and collected surveys intended to canvas the entire certified staff at each school, university faculty working at the school, and pre-service teachers. I additionally used program literature, informal classroom observations (both of public school students and of pre-service teachers), and other materials provided by PDS participants at the individual sites. Table 3 presents a breakdown of data sources and survey return rates by individual PDS site and by setting.

I used Miles and Huberman's (1994) pattern coding schema to independently analyze the four settings' interview data. I used first-level coding to summarize data into one of many descriptive codes, proceeding to pattern coding and then to memoing and interpretation of patterns. In order to increase reliability of each case study's findings, I required multiple data sources for establishment of any one pattern: themes across participant groups (including pre-service teachers, university faculty, or school faculty), and/or across methodologies (interviews supported by surveys, for example, or survey results supported by observations). In order to increase the validity of my findings, I returned the individual case studies to each setting, asking for feedback on accuracy and fit of conclusions; three of the four settings provided feedback. The most common reaction to the independent case studies was agreement; several inaccuracies (primarily about an aspect of the specific program's model) were corrected. Setting participants who provided feedback supported the findings; no participants voiced disagreement with overall interpretations. Additionally, at one setting where I had established relationships prior to the study, I asked an independent researcher to examine the data. We agreed on almost all analyses. In several instances of minor disagreement related to wording of conclusions, we easily arrived at agreed-upon phrasing.

LIMITATIONS

The number and diversity of settings/PDSs included in this study limited my understanding of any one model of partnership or any one institution. The limited time spent at each PDS and each overall setting necessarily renders an incomplete picture. Although I conducted numerous interviews (72 interviews of 130 participants), I did not interview representative samples of all school faculty, education faculty, or pre-service teachers. The survey return rate averaged 48% but rates varied considerably across the

Table 3. Breakdown of Data Sources by PDS Within Setting

PDS	*Setting No.*	*Distributed*[a]	*Returned*	*Return Rate*	*No. Of Interviews*[b]	*No. Interviewed*[c]
1		50	20	40%	5	8
2		50	31	62%	9	16
3		52	33	63%	7	15
Subtotal	**1**	**152**	**84**	**55%**	**22**	**41**
4		92	74	80%	12	15
5		69	49	71%	6	11
6		45	23	51%	5	11
Subtotal	**2**	**206**	**146**	**71%**	**24**	**38**
7		35	7	20%	5	8
8		136	10	7%	7	9
Subtotal	**3**	**171**[d]	**17**	**10%**	**15**	**20**
9		115	63	55%	6	26
Subtotal	**4**	**115**	**63**	**55%**	**11**	**31**
Total		**644**	**310**	**48%**[e]	**72**	**130**

[a] Surveys distributed to certified staff, university liaison(s) and long-term university pre-service teachers at each site. These numbers are approximate, as there was no guarantee that potential respondents received a survey.

[b] Some interviewees were at the setting level rather than the individual PDS site level. Thus, the total may be more than the individual PDS numbers indicate.

[c] Op cit.

[d] Not all participants received a survey. The return rates are therefore gross approximations.

[e] 48% is the mean. The median and the mode are both 55%.

four settings, ranging from a low of approximately 10% to a high of 71%. Furthermore, this cross-case analysis is based on the four independent case studies and is necessarily dependent on the reliability and validity of each individual case study. Each of these factors limits the generalizability of findings. Case study research, however, is not intended to generalize to the study's population. This cross-case analysis is intended to describe the extent to which early PDS theories have been realized within and across these four settings, thus providing a comparative framework that other PDS participants can use for their research purposes. It further describes conditions that were present when a specific theory was realized—helpful to settings working toward similar outcomes.

FINDINGS

Each of the four previously described program theories (see Table 1) is examined in light of evidence that supported or failed to support the theory. Conclusions are based on overall findings from the four independent case studies. Not all survey questions were answered by all respondents; the total response numbers thus vary by survey question. Aggregated survey results and narrative data exemplars are available upon request from the author.

Theory 1: Improvement of Teacher Preparation

Participants of the studied PDSs clearly viewed improvement of teacher preparation as a primary purpose of their PDSs. Responding to an open-ended survey question, nearly half of the 310 respondents indicated that teacher preparation was the sole purpose of their partnership. Participants overwhelmingly agreed that school-university collaboration had improved the preparation of new teachers.

Field Experiences Throughout Program

It was theorized that ongoing exposure to schools would better ensure a more complete understanding of schooling as a whole, of students as individuals, and of the variety of approaches to teaching and learning. Pre-service teachers within each of the four settings participated in field experiences throughout their preparation, and were immersed in intensive experiences for at least one year.

Interview data supported the theory that increased field experiences would lead to broader understandings of schooling. Pre-service teachers appreciated learning from a variety of teachers who helped them under-

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stand multiple ways of teaching. They understood broader issues of schooling more than just classroom procedures. School administrators indicated that breadth of experience had led to pre-service teachers' deeper understandings of schools as systems. University faculty members described the pre-service teachers' increased knowledge of children and of learning process. Nearly all (87.8%) of the 273 survey respondents somewhat or strongly agreed that the pre-service teachers at their sites had acquired a strong understanding of the entire system of schooling. Across the four settings, pre-service teachers participated in extensive field experiences that were developmentally designed and provided a broader understanding of schooling.

Data reported later in this report, however, complicate the analysis. In one setting, for example, there were no mechanisms for interactions beyond the classroom, limiting truly broad understandings of the school. Across settings, few teachers or pre-service teachers participated in school-based inquiry or used school-wide data, further limiting broad understandings. It appeared that PDS-prepared new teachers' understandings were broader, but likely relative to those of previous new teachers who had been prepared in traditional, campus-based programs.

Differences across settings included the diversity of field experiences. Setting Four experiences, for example, could all occur a single classroom in a suburban school. Setting Three, however, required placements in urban, rural, elementary, secondary, and special education classrooms, leading to higher levels of confidence in their pre-service teachers' abilities to work with urban and/or high needs students. Interview data indicated that increased diversity of field experiences led to pre-service teachers' increased confidence, logically limited to those settings experienced by the pre-service teachers.

Theory and Practice Closely Connected

Early theory suggested that pre-service teachers would be more likely to persist in best teaching practices if they were exposed to those practices during their preparation and if they participated in candid discussions of the relevancy and practicality of related theory. This condition was met by Setting Two's graduate program and Setting Four's undergraduate program—both programs had two features in common that the others were missing. First, both had university courses taught on the school campus by university faculty who also served as the pre-service teachers' primary supervisors. These full-time university faculty were often in classrooms and regularly were able to help pre-service teachers make theory and practice connections and to recognize discrepancies that existed. Second, there was a regular vehicle for school, university, and pre-service participants to conjointly discuss theory and practice. Setting Two's graduate program

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required mentor teachers to attend weekly seminars with the pre-service teachers and university faculty. Setting Four regularly invited faculty to attend noon-hour seminars, where discussions centered on theory and practice. Within these two settings, interview data indicated that pre-service teachers valued theory and were often discussing connections and discrepancies between theory and practice.

Settings One and Three, on the other hand, did not have university faculty regularly observing in the PDS classrooms. Setting One did offer university courses on the schools' campuses, but the university faculty were rarely in P–12 classrooms and did not supervise the pre-service teachers, instead using clinical faculty, teachers on special assignment, as supervisors. Setting Three did not teach classes on the PDS campuses and graduate students were the pre-service teachers' primary supervisors. In these two settings, interviews indicated serious gaps between theory and practice. Pre-service teachers valued both, but more highly valued practice. Teachers voiced frustration over the gaps between what the pre-service teachers were taught and the realities they faced; they reported that university faculty were out of touch. In both of these settings, interview data indicated that pre-service teachers would discuss the gaps between theory and practice with the university supervisors, questioning the practicality of the theory, but were not comfortable discussing the gaps with their school-based mentor teachers, limiting the extent to which PDSs served as a vehicle for renewal of practice or better-informed theory.

Survey data, a broader picture of both involved and uninvolved faculty perceptions in the PDSs, did not clearly distinguish between the five different models of teacher preparation in the study, indicating that PDSs, in general, had increased connections between theory and practice. Most of the 281 respondents somewhat (42.7%) or strongly (49.8%) agreed that the preparation of new teachers connected theory and practice. Responses were similar across settings. It appeared that across settings, theory and practice have been more closely connected as a result of closer collaboration between schools and universities. Still greater connections were in evidence in those settings where university faculty regularly taught and supervised pre-service teachers and where school, university and pre-service participants regularly met and discussed issues of theory and practice.

Pre-service Teachers Supervised by Both School and University Personnel

Writings from the early proponents of PDSs suggested that pre-service teachers would need frequent feedback from both groups if they were to simultaneously maintain focus on theoretical considerations and pragmatic workings of the classroom and the school. Across all four settings, pre-service teachers regularly received feedback from both school and university personnel. Setting Four additionally required that pre-service teachers observe and provide feedback to their peers.

As indicated earlier, Setting One, however, used teachers on special assignment and Setting Three used graduate students to serve as the university supervisors. Participants from these settings questioned whether a university perspective was really represented. While there was an appearance of regular university supervision, the school-based experiential perspective appeared to be more strongly represented at those settings where regular university faculty were less involved.

A Strong Support System

Early theory suggested that new teachers would be more likely to stay in teaching and to work collaboratively in schools if they experienced strong support and team-based synergy during their preparation. Pre-service teachers across the four settings indicated feeling strongly supported during their preparation to become teachers. They repeatedly mentioned their university supervisors, their mentor teachers, other teachers, and their peers as sources of invaluable support. School and university faculty equally expressed pre-service teacher support as their responsibility.

Overall, pre-service teachers felt well-supported. Being a member of a cohort and working over time with a group of school faculty strengthened the support systems. Support was strongest and most valued when it occurred throughout the pre-service teachers' entire university experience, most visible in Setting Three.

Teacher Preparation Program Collaboratively Designed and Implemented

If close connections between theory and practice were to become a reality, both school and university personnel would need to share responsibility for and ownership of the program. Theory-based and experience-based knowledge would need to be equally valued, as would the perspectives of both school and university personnel. The extent to which the teacher preparation programs were collaboratively designed and implemented varied significantly across programs. Setting One participants, for example, were very collaborative in the design of their program. Since then, however, school participants indicated being much less involved in programmatic decisions. Interviewed teachers indicated that they currently had little programmatic input and that university faculty made decisions related to teacher preparation.

The programs of Settings Two and Four were primarily designed by university teacher educators. The field components—the PDS portions of the program—were collaboratively designed by both school and university participants. Interviewed school participants at both settings indicated strong ownership of the programs' field experiences and felt that their concerns and suggestions were incorporated into program changes.

The program in Setting Three was primarily designed by university teacher educators. School personnel indicated little ownership of the program and additionally indicated that their concerns were often not considered.

Collaboration, as has been often described in previous literature, is time consuming and difficult to maintain over time. Those settings where university faculty spent a significant amount of their time teaching and supervising in the PDS appeared to maintain a balance between university and school perspectives and to keep open lines of communication. It was in those settings that school participants indicated being equal partners. Furthermore, collaboration in a program's initial design was insufficient; opportunities for ongoing input demonstrated an important commitment toward collaboration.

Summary of Theory 1: Improvement of Teacher Preparation

Participants overwhelmingly indicated that new teachers were better prepared than they had been prior to PDS collaboration between schools and universities. New teachers benefitted from increased opportunities to practice, from working with multiple mentor teachers, and from receiving regular feedback from multiple perspectives. Study participants indicated that outcomes of PDS participation included new teachers' increased confidence levels, their stronger abilities to work with individual students, their deeper understandings of schooling as a system, their increased appreciation of peer feedback and support, and their increased abilities to connect theory and practice. These outcomes were strongest in settings where preservice teachers were placed in varied settings and where university faculty, rather than teachers on special assignment or graduate students, were an integral part of the PDS's functioning. Furthermore, school personnel indicated stronger ownership of the program in those settings that were collaborative rather than cooperative in design and implementation. A necessary next research step would be to determine when these conditions are all met, whether changes occur in new teachers' employment patterns, their teaching practices, or in P–12 student learning.

Theory 2: Increased Professionalization of Teaching

Although increasing the professionalization of teaching was a primary purpose of PDSs for both the Holmes Group and the Carnegie Forum (see Table 1), this was not an explicit goal of any of the four studied settings. PDS participants rarely talked of professionalization as a purpose of collaboration although some did view it as an outcome. The early literature described five primary conditions that would need to be met if professionalization were to increase.

Increased Acknowledgment of and Respect for Teacher Knowledge

Historically, literature on teaching and learning has more highly valued research-based knowledge, known primarily by university teacher educators. Teachers have placed much greater value on their experiential knowledge. PDS proponents theorized that increased recognition and use of teacher knowledge would lead to increased empowerment of teachers and to more relevant research on teaching and learning. Interview data from the four settings indicated that university teacher educators working in PDSs respected teachers, their work, and their expertise. These university faculty easily provided examples of how teacher knowledge had influenced their practice and their curricula. Teachers working closely with the site-based university faculty indicated that teacher knowledge was indeed respected by those university faculty regularly interacting with teachers in non-hierarchical ways. At those settings where university faculty were less involved, however, teachers described a hierarchy of knowledge that continued to place theory-based knowledge above that of experience.

Interviewed teachers greatly appreciated acknowledgment of their expertise. They described indicators such as invitations to participate as panel members and presenters at professional conferences, changes in the teacher preparation program resulting from their input, invitations to become mentor teachers, and invitations to teach in the university courses. Survey responses indicated that the majority of the 273 respondents somewhat (54.2%) or strongly (26.0%) agreed that respect for teachers and teacher knowledge had increased as a result of PDS work.

Increased Opportunities for Meaningful Professional Development

Past professional development for teachers has rarely or only loosely related to teachers' self-identified needs. It was envisioned that in the PDS, school and university faculty would together determine their needs and collaborate in meeting those needs. Most school-based participants in the four settings indicated that working with pre-service teachers increased their own professional growth. Beyond their work with pre-service teachers, school participants also reported that they had professional development opportunities because of their PDS relationships that they would not otherwise have: Conferences, university resources, leadership institutes, reflective seminars, and reading groups were some of the activities described. School participants indicated that these opportunities closely connected to their work and that they valued the opportunities that their PDS provided. Only in one PDS site, however, was the professional development a truly collaborative endeavor, where participating mentor teachers and the university's supervisor together created learning experiences tailored to their needs. Mostly, if university faculty were involved in professional development efforts, they were the experts rather than the envisioned co-learners.

Increased Opportunities for School-Based Creation and Presentation of New Knowledge

A primary vehicle for increasing the professionalization of teaching was theorized to be that of creating new knowledge. If university and school faculty were working together, new teaching practices would be created and studied, and learning would be more deeply understood. This new knowledge would be presented to educators beyond the PDS.

Most survey respondents either somewhat agreed (60.3%) or strongly agreed (30.7%) that teachers at their site created new teaching practices and research-based knowledge on teaching and learning. While still a majority, fewer agreed that they personally created new knowledge and even fewer agreed that they participated in communicating new practices or research-based insights to educators outside the PDS.

Interview data supported the survey data. Teachers often looked for new ways to help their students learn. Rarely, however, was this a formalized process where data was systematically collected and analyzed. Some participants presented their work at conferences, others were involved in collaborative writing with university faculty. The presentations and writing, however, primarily focused on collaboration or on PDS design and implementation rather than on teaching practices or on student learning, as had been earlier theorized.

Increased Decision-Making Responsibilities for Teacher Preparation

As was described previously, the collaborative nature of the partnerships varied across settings. In those settings where university faculty served more as figure-heads than as an integral part of the school's faculty, teachers reported having little say over how new teachers were prepared. Teachers in Settings One, for example, expressed frustrations with schedules and with unrealistic expectations of the pre-service teachers. They did not always feel that their input was welcome. Teachers in Setting Three indicated little decision-making responsibility; some but not all participants indicated frustration with the lack of collaboration. Settings Two and Four had systematic vehicles for direct feedback to university faculty. Setting Four had a PDS advisory board, comprising teachers, administrators, pre-service teachers, university faculty, and parents, where members regularly discussed issues and made key decisions. The graduate program in Setting Two held weekly seminars with all participants; feedback and input were regular features of their interactions. This was less apparent in Setting Two's undergraduate model but faculty still indicated that their input was regularly sought and respected.

Increased Opportunities for Career Advancement

A flat career trajectory has long been viewed as a serious impediment to keeping excellent teachers in the profession. School-university collaboration, it was theorized, would provide the impetus for recognizing master teachers and creating positions of teacher leaders within schools. These changes would additionally change salary structures—teachers in new leadership roles would be paid accordingly.

Settings One and Two had incorporated teacher leadership positions in their PDS models. Setting One released a teacher in each PDS to serve as the university liaison, to coordinate all placements, and to work with pre-service teachers and mentors. Additionally, Setting One hired teachers on special assignment to supervise the pre-service teachers. The school participants viewed these positions as opportunities for professional growth and career enhancement. Ironically, Setting 1's model provided the most opportunities for teacher leadership while facilitating little involvement by the university faculty.

Setting Two's graduate model was very selective in identifying mentor teachers; thus, being selected was viewed as prestigious. Two teachers were additionally released for one semester every two years to help supervise pre-service teachers who, for their final semester, assumed full-time teaching positions in regional vacancies. These supervisory positions, too, were seen as professional growth opportunities. A positive outcome at this setting, then, was that for those involved, PDS participation was viewed as prestigious and presented teachers with multiple opportunities. This program's selectivity also created feelings of exclusivity; those faculty who were not involved as mentor teachers were not always positive about the program.

Setting Two's teacher release was not a permanent position but one that rotated through the mentor teachers. Similarly, Setting One's teacher on special assignment position was short-term. Only Setting One, then, had actually created a new position where a teacher leader assumed different responsibilities as a career move (with no resultant pay increase). Neither Setting Three nor Four had created career advancement opportunities for the schools' teachers.

In none of the settings were teachers well-compensated for their work with pre-service teachers. When asked if salary options for public school teachers had increased, 40% of the 228 survey respondents strongly disagreed, and 29.3% somewhat disagreed. Most settings provided small stipends to their mentor teachers.

Summary of Theory 2

Overall, PDS participation at these settings increased recognition of teachers' expertise. Teachers valued various professional development opportunities that would not otherwise have been available and some participated in creating and presenting new knowledge. Although most of the conditions theorized as necessary had at least somewhat been met, there was little indication that the changes were leading to or would eventually lead to changes in how teaching was viewed by those outside the profession.

Theory 3: Improved Regularities of Schooling

If schools were to become places of ongoing improvement and innovation, various unproductive norms or regularities of schooling would need to change. These changes would require cultural shifts in ways that school personnel viewed their daily work lives. Four changes were consistently theorized in the early literature.

Teacher Isolation Reduced

Schools traditionally have been places where adults rarely talked about teaching and learning with other adults. If schools and universities collaborated, it was theorized, teachers would regularly discuss their work with pre-service teachers, university faculty and other teachers engaged in similar work. Ongoing professional discussions would become the new regularity, leading to increased potential for renewal.

Nearly everyone in the study agreed that their participation in a PDS led to increased interactions with other adults. Participants talked more about teaching and learning. Even school administrators described a lessening of isolation, both for themselves and for the teachers. In those settings where interactions occurred regularly—were built into the model—a shift in the schools' cultures was evident. Faculty were regularly discussing their work, were asking for increased opportunities to do so, and valued the interactions.

In Setting Three, however, there was no built-in vehicle for interaction beyond the classroom. The teacher and the pre-service teacher discussed their work, when they found time, and the pre-service teachers and the university supervisors and/or faculty talked in class or in seminar, but rarely did the pre-service teacher, the university supervisor, and the school's teacher interact together. In this setting, there was a lessening of isolation in individual classrooms. Their interactions, however, did not appear to produce changes at the school level. Teachers viewed these interactions more as a service to the profession than as a way to improve their work and the conditions of teaching.

Regular Mechanisms for Feedback and Reflection

Only in Setting Two's graduate program were there built-in mechanisms for the PDS's university participants to provide regular feedback to school personnel. Pre-service teachers, who observed in many classrooms throughout their program, were required to complete a feedback form after each visitation. Additionally, pre-service teachers were required to complete school-based inquiry projects that they presented to the faculty. Setting Four regularly hosted visitors to the school and viewed this examination and questioning from an outside perspective as valuable feedback.

Survey respondents indicated that many teachers in the PDSs continued to work without regular feedback (40.1% of the 308 respondents somewhat or strongly disagreed that they regularly received feedback). Interview data additionally suggested that feedback was viewed by many school personnel in a negative, potentially offensive light. While teachers were comfortable with praise, they clearly disliked the idea of feedback that could be viewed as negative. Teachers were even uncomfortable providing pre-service teachers with critical feedback related to their concerns. One school-based liaison explained that the teachers were *"too professional"* to be critical. A teacher at another setting explained that feedback from university perspectives was of little worth: "*I don't think they know what they're talking about. . . . There are obviously different skills. But I think that we know what works here*" (66). University faculty at the schools seemed to agree that constructive feedback was difficult. One university instructor explained that providing the school's faculty with positive feedback was a joy and something she viewed as an important part of her job. Constructive criticism, however, could be viewed as *"meddling"* by the school's faculty.

Working with pre-service teachers did provide some feedback to the teachers involved as mentors. This feedback, primarily at the individual level, might lead to changes within the classroom but, according to interviewed teachers, would not likely improve school-wide systems. Feedback, particularly from the university faculty, did not appear to be expected or desired by the schools' faculties. This theorized condition for change had made some progress where there were actual mechanisms for feedback. In most PDSs, however, feedback from differing perspectives continued to be problematic and even unwelcome.

Questioning of Routinized Practice Increased

Overall, participants reported high levels of reflection and questioning, not necessarily because of their PDS involvement but because of regularities within the schools. That said, participants also indicated that PDS participation increased their reflection. Pre-service teachers were viewed by many as an impetus for reflection: Their presence and their questioning of teacher norms required that teachers examine and explain their practices.

Setting Three participants candidly explained that while this reflection was helpful to pre-service teachers, it was insufficient to change practices within the school. Because reflection and questioning were not built into teachers' schedules, they explained, there was little resulting change in their practice. Survey responses indicated that 56.7% of the 202 respondents somewhat agreed that questioning of school and university habits had become a regularity. Interview data confirmed, however, that this questioning was insufficient to change practices.

Inquiry Processes/Data Used to Inform Decisions

This change in how teachers viewed their work would, hypothetically, lead to improved classroom and school-level practices and would also lead to increased status of teaching. It was theorized that university faculty, responsible for research as a regular part of their roles, would help to imbed ongoing study of practice into the schools' cultures.

Participants at each setting easily described how their use of classroom data informed their practice. Setting One, for example, regularly used data on children's reading progress to inform their teaching of reading. Their reading instruction resulted from university relationships and from PDS-based professional development for their teachers. All settings reported far less use of school-wide data than of classroom data to inform their teaching.

Rarely were teachers engaged in data collection and study of practice beyond that of student assessment. Some evaluation of the PDS program had occurred at each setting. Those settings working with graduate-level preparation programs benefitted from pre-service teachers' inquiry projects. Additionally, the PDS partnership in Setting Two regularly offered action research courses to all of the school's faculty and to the faculty from each feeder school. Most teachers, however, did not view inquiry or formalized study of their practice or of the school's routines as their responsibility.

Summary of Theory 3

Pre-service teachers helped to reduced teachers' isolation, regularly talking with mentor teachers about teaching and learning. Changes beyond reduced isolation required systematic mechanisms and expectations for change, two factors not seen consistently across sites. Graduate programs did increase site-based inquiry but did not necessarily change the norm of teacher-conducted inquiry. Regular university faculty presence increased feedback, but mostly only that which was positive. Overall, the deep-level structures of schooling continued.

Theory 4: Improved Regularities of Teacher Education

Advocates of school-university collaboration did not limit their criticism to schools and to the preparation of new teachers. They also felt that serious changes needed to occur with university programs that prepared new teachers. Advocates proposed that at least three regularities would be improved if collaboration increased. Each of these hypothesized changes assumed a regular and sustained university presence at the collaborating school, an assumption not met by two of the four studied settings.

Education Curricula Connected to Schools' Realities

Past criticism of teacher preparation included the gap between university course work and schools' realities. Teachers have suggested that their education course work (where most theoretical knowledge is located) did little to help them with the realities of teaching. Early theory suggested that if university faculty spent significant time in schools, their curricula would more closely account for reality. On one level, this condition was met by the data. PDS participants largely agreed that the university faculty member(s) who worked on their campuses understood classroom realities. Preservice teachers indicated that their PDS-based instruction (when it was a part of their field-based work) incorporated current understandings of schools and students. University faculty working at the PDSs could easily describe the impact of working at the school on their instruction and curricula. Consistently, however, participants also agreed that the PDS had little effect on campus-based courses and faculty; university-based instruction did not increasingly reflect classroom realities.

Pre-service teachers reported that they regularly explained current practices and realities to their university-based instructors, thus serving as a primary conduit of information on schooling practices for many of university-based faculty. Some teachers questioned the accuracy of university-based educators' understandings, unsure whether pre-service teachers, novices in the classroom, could accurately describe the issues teachers were facing.

Overall, there were no formal mechanisms for university-based faculty to use PDS relationships to enhance their understandings of schools; neither were there explicit expectations that this occur. Survey data confirmed, however, that PDS-based university faculty were perceived as current. During interviews, university supervisors provided numerous examples of the impact of such currency on their teaching.

University Research Connected to Schools' Concerns

Two of the studied models provided teacher education at the graduate level. The graduate level models did provide research on schools' concerns. Setting Two's graduate-level pre-service teachers completed a thesis, which related to their work in schools. This work involved university faculty on the pre-service teachers' committees and was often reported to the schools' participants. Setting Three pre-service teachers selected a PDS's research or project proposal to complete as their master's project. Participants within this setting viewed these projects as a primary benefit of their PDS participation.

Beyond the pre-service teachers' work, some program-based evaluation had occurred at each site. Several faculty working with the graduate models had, additionally, formally studied the field-based preparation of new teachers. This research, both the evaluation and the study of teacher preparation, most directly connected to university-level concerns. No school- or student-centered research beyond that of graduate-level pre-service teachers' work was reported. Thus, the PDS model, overall, had little impact on creation of new knowledge related to the schools' primary focus—that of student learning.

Mechanisms for Feedback and Reflection on University Faculties' Work

Advocates of school-university collaboration hoped that just as university perspectives could inform schooling practices that schooling perspectives would likewise inform university practices. Two conditions were necessary for this to occur. First, there needed to be regular vehicles for feedback and second, there needed to be a desire and expectation for such feedback. Setting One met neither of these conditions, the remaining three settings all provided some mechanism for feedback. These mechanisms included focus group interviews, advisory boards, and regular seminars attended by university and school faculty along with pre-service teachers.

The school-based feedback focused almost exclusively on the field-based portions of teacher preparation, sometimes leading to program modifications. Teachers did not, however, provide university faculty feedback on their teaching, their university-based course work, or their research. The feedback provided was likely insufficient for changes beyond field-based portions of teacher education curricula.

Summary of Theory 4

In an overall sense, data supported some change in university regularities. Teacher education curricula had been affected by the PDS model of placing pre-service teachers in field-based experiences earlier in their programs and for longer periods of time. The pre-service teachers and the PDS university instructors more deeply understood schools' realities. Perceptions of the currency of university-based faculty continued to be less positive than those of PDS-based university faculty. Educational research, long questioned for its relevancy to teachers, showed little change. Although faculty at each of the studied settings had published articles describing their programs, including evaluation data in some cases, none had refocused their research agendas to align with schools' student-based concerns. Graduate-level pre-service teacher research, however, was valued and often connected to schools' concerns. Lastly, universities received increased feedback from schooling perspectives, primarily associated with the relevancy and practicality of field-based program components. Feedback on university teaching and research did not appear to be expected or desired.

CONCLUSIONS

Analysis across the four case studies supported the validity of Theory 1, improvement of teacher preparation. All of the five conditions hypothesized as necessary for improvement had been met, at least to some degree; several PDSs met all five. According to an overwhelming majority of this study's participants, new teachers who are prepared in PDSs are better qualified for their first year of teaching. The implementation changes and new teacher outcomes reported here are important to recognize and celebrate. In fact, these findings, when combined with others claiming similar improvements, may be sufficiently strong to conclude that preparing new teachers in a traditional campus-based model is no longer defensible.

But what of the remaining three theories? Although conditions leading to increased professionalization of teaching (Theory 2) were, in all settings, at least somewhat improved, teacher participants did not report major changes in how their profession was viewed. It may be, as pointed out by one participant, that professionalization is a recognition bestowed by those from outside the occupation. The beliefs of parents, media, and politicians may have much more to do with professionalization of teaching than PDS-influenced rearrangement of roles and regularities within schools. Data did not indicate that PDSs were changing or would eventually change the overall status of teaching, raising serious concerns about the validity of Theory 2.

The most troubling lack of progress toward PDS potential occurred in Theories 3 and 4, where data indicated that the hypothesized conditions, when in place, could lead to ongoing renewal of schooling and of teacher education. Two changes were consistent across settings: teacher isolation was reduced and teacher education curricula more regularly acknowledged schools' realities. Changes in feedback mechanisms, in routinized study of teaching and learning, and in ongoing questioning of practice, were not consistently found.

Neither teachers nor teacher educators appeared comfortable providing their counterparts with constructive feedback that could lead to closer scrutiny of practice or procedures. Furthermore, this kind of feedback was not expected or desired. Neither teachers nor teacher educators were systematically studying student learning. Expectations here, too, seemed low or nonexistent. And while many of the PDS participants were reflective about their own teaching and their own students, there appeared to be little PDS-generated reflection on school or university practices, systems, or procedures. The conditions that were proposed as necessary to improve regularities of schools and teacher education programs had not even become part of these PDSs' future goals.

Unlike Theory 2, however, there was evidence to suggest that the hypothesized conditions hold potential for change. The graduate program in Setting Two came closest to meeting conditions of Theories 3 and 4, but only for a small group of master teachers and one teacher educator. While the small group of participants reported significant changes in how they worked, the larger school and university communities did not. These changes supported the theories, albeit on a scale too small to affect renewal at the institutional level.

The greatest potential of the Professional Development School appears to lie in the willingness of its experienced participants, both school and university-based, to use their different perspectives and skills to improve their collective work. While tenacious hierarchies and insufficient supports inhibit progress, the near absence of expectations related to symbiotic feedback and use of each others' expertise precludes progress. While teachers and teacher educators enthusiastically help novice teachers improve their teaching and expand how they view their work, they are decidedly uncomfortable doing the same for each other.

Although there were exceptions, neither teachers nor teacher educators regularly embraced feedback on their work as a tool for ongoing improvement. Teachers, accustomed primarily to infrequent evaluative feedback, seemed to bristle at the idea of university input as a vehicle for their improvement. Teacher educators, in general accustomed to no professional feedback on their teaching and primarily only anonymous feedback on their professional writing, did not regularly view teachers as a potential source for their improvement. Furthermore, neither group of educators systematically engaged in study of the students' learning or of the school's policies or practices.

If teachers and teacher educators are to help novice teachers and themselves address schooling challenges that neither group currently understands, then they must learn to share their expertise and their differing perspectives, not just with pre-service teachers but with each other. In this way, PDSs could serve as a vehicle for ongoing improvement of the whole. Until then, however, gains from this intensive form of school-university collaboration appear mostly limited to better preparing new teachers for existing classrooms and practices.

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CHAPTER 2

IMPLEMENTING AND RESEARCHING TEACHER EDUCATION PROGRAMS IN PDSs

A Focus on Authenticity

Gay Goodman

ABSTRACT

This chapter presents a thorough review of the literature on Professional Development Schools and a thoughtful examination of the issues involved in implementing them and researching their effectiveness. An attempt is made to analyze each of the principles necessary for implementing an authentic PDS as envisioned by the Holmes Group (1990). Each principle is defined in relation to the construct of authenticity as it is applied in the professional literature to school student and teacher learning. A model for implementing authentic PDSs and researching their effectiveness is presented. Finally, barriers to authentically implementing PDSs and researching their effectiveness are analyzed. Careful examination of these barriers serves as the basis for positing an explanation for the lack of consistent research on their effectiveness. The conclusion is drawn that authentic PDSs cannot be implemented nor can they be researched without significant reform in the American educational system.

INTRODUCTION

In 1986 the Holmes Group, a consortium of 100 of the nation's major research universities, convened for the first time. Building upon the concept of "clinical schools" presented by the Carnegie Forum (1986), the initial report of the Holmes Group (1986) introduced the concept of PDSs. The shared purpose of Holmes Group participants was to create a structure for using Professional Development Schools (PDSs) as a vehicle for improving teacher education in America. Their initial efforts culminated in the publication of a report in 1990. This report, *Tomorrow's Schools: Principles for the Design of Professional Development Schools*, has had a major impact with regard to shaping teacher education in this country for the new millennium. As the name of their report implies, creating a foundation for PDSs that could be used in field-based teacher preparation was the major thrust of their efforts. Removing educational reform from their agenda, the Holmes Group instead focused on what they perceived the mission of PDSs to be. This mission was to improve the profession of teaching by minimizing students' achievement and well-being, educating pre-service, novice and experienced teachers, and researching methods for improving the knowledge and practice of teaching (Abdal-Haqq, 1999; Holmes Group, 1990).

Since the initial publication of the Holmes Group Report (1990), experimental PDSs have proliferated across the nation. According to the Professional Development School Clearinghouse (1998), 1000 PDS sites have been established. A total of 38 states have documented PDS partnerships. A majority (71%) of these began between 1991 and 1996. Most (75%) are housed in elementary schools. These model teacher education programs have attempted to incorporate the PDS as a venue for preparing teachers. Many of them have been described in the professional literature, and they are quite diverse. They include schools at the elementary and secondary levels as well as those in both urban and rural settings. Representative of this new wave of PDSs are recent programs described by Abma, Fischetti, and Larson (1999), Bondy (1999), El-Amin, Cristol, and Hammond, (1999), and Mebane and Galassi (2000).

Recent reviews of the literature on Professional Development Schools (e.g., Abdal-Haqq, 1998) have noted the lack of consistent, empirical evidence indicating that PDSs actually do a better job of preparing pre-service teachers and enhancing student learning. Only a few studies have been conducted that attempt to determine whether or not teachers educated in these school-based programs are, in fact, superior to those educated in more traditional, campus-based programs. By and large, these studies have yielded conflicting evidence. While some studies (Neubert & Binko, 1998) found that pre-service teachers educated in PDSs are rated more favorably than those from traditional programs, the results of other studies (Ridley, Carlile, & Hurwitz, 2001) have not been as favorable. As noted earlier, however, educating the pre-service teacher is only part of the mission of the PDS. Even less is known with regard to whether or not these new institutions have improved school students' achievement and/or well-being. Also, a thorough literature search yielded few studies that attempt to assess the impact of PDSs on novice teachers, experienced teachers, or teacher educators. Finally, the extent to which PDSs have shaped research methods and contributed in general to the knowledge of and improvement in teacher education programs is largely unknown. Even in studies that report positive findings regarding these programs, little is known concerning which aspects of the PDS might account for these desired outcomes.

Neither has the extent to which PDSs actually conform to the theoretical model and context that the Holmes Group proposed for these new institutions been studied in depth. At this point, school-based teacher education programs are considered to be PDSs because they are so named. Teitel (1997) addresses this notion of authenticity in a recent publication that attributes the lack of success and short lives of some PDSs to a failure of universities to fully realize each of the purposes that underlie the mission of this new institution.

In a speech (2001) and subsequent publication (2002), Mantle-Bromley reports on a study that attempted to address these broader issues. The results of the study were not encouraging. Her study confirms the work of others (Hall, 1996; Sandholtz & Dadlez, 2000) that found PDSs to be rated more effective at pre-service teacher preparation than traditional programs. She also found, however, that these new institutions are failing to have a significant impact on most of the other missions of the PDS. In discussing what she refers to as the "theoretical projections" of PDSs, she notes that these new institutions have had little impact on the professionalization of teaching. While university faculty who participate do publish work related to PDSs, they have not consistently refocused their research agendas on outcomes related to school students, and, thus, done little to change the teaching practices in their training sites. She discusses the void between the concept of the PDS as proposed by the Holmes Group (1990) and the reality of the PDS as it currently exists. In so doing, she states that until these gaps between theory and reality are closed, tomorrow's teacher preparation, tomorrow's connections between theory and practice, and tomorrow's understandings of teaching and learning will look surprisingly like yesterday's (Mantle-Bromley, 2001).

Levine (1998) expresses similar concerns. She points out the fact that in 1997 NCATE-drafted standards for use in establishing and evaluating PDSs were originally conceived. To date, however, no empirical studies have been reported in the professional literature related to how well PDSs conform to these standards or other elements of authenticity.

The purpose of this paper is to present a thoughtful examination of the issues involved in implementing PDSs and researching their effectiveness. An attempt will be made to analyze each of the principles necessary for implementing an authentic PDS as envisioned by the Holmes Group (1990). Each of these principles will be defined in relation to the construct of authenticity as it is applied in the professional literature on school student and teacher learning. A model for implementing authentic PDSs and researching their effectiveness will be presented. Finally, barriers to authentically implementing PDSs and researching their effectiveness will be analyzed. Careful examination of these issues will serve as the basis for positing an explanation for the lack of consistent research on their effectiveness.

AUTHENTICITY AS ESTABLISHED BY THE PRINCIPLES IN THE HOLMES GROUP REPORT

The concept of using model schools, or laboratory settings, in teacher education is hardly a new concept. Decades ago many colleges of education affiliated their teacher education programs with exemplary schools that were intended to expose pre-service teachers to an ideal school/learning environment. Too often these programs provided a near perfect model in a carefully controlled setting that demonstrated for the beginning teacher "how things should be." The same individual was then employed in the real world and learned all too soon "how things really are."

Rather than a reinvention of the laboratory school, the PDS, as proposed by the Holmes Group (1990), is considered to be a new and very different institution. Six basic principles serve as the foundation for establishing a PDS. The differences between the newly conceived PDS and the more traditional concept of a laboratory school rest on these basic principles. As cornerstones for the implementation of the PDS, these principles are crucial for maintaining authenticity and are considered vital to its success. A setting for the clinical supervision of pre-service teachers must contain each of these elements to qualify as an authentic Professional Development School.

Webster's Dictionary (Give, 1993) uses synonyms such as "genuine, veritable, and bona fide" to define authentic. It proceeds to describe this term as "worthy of acceptance or belief as conforming to fact or reality" and "conforming to an original so as to reproduce essential features, such as a portrait to its subject" (p. 146). If an accurate definition of authenticity is then applied to the concept of a PDS, these new institutions must be true to the original six principles used to define them in the Holmes Report. The principles that guide PDSs as proposed by the Holmes Group are as follows:

> *Principle One.* Teaching and learning for understanding. All the school's students participate seriously in the kind of learning that allows you to go on learning for a lifetime. This may well require a radical revision of the school's curriculum and instruction.
>
> *Principle Two.* Creating a learning community. The ambitious kind of teaching and learning we hope for will take place in a sustained way for large numbers of children only if classrooms and schools are thoughtfully organized as communities of learning.
>
> *Principle Three.* Teaching and learning for understanding for everybody's children. A major commitment of the Professional Development School will be overcoming the educational and social barriers raised by an unequal society.
>
> *Principle Four.* Continuing learning by teachers, teacher educators, and administrators. In the Professional Development School, adults are expected to go on learning, too.
>
> *Principle Five.* Thoughtful long-term inquiry into teaching and learning. This is essential to the professional lives of teachers, administrators, and teacher educators. The Professional Development School faculty working as partners will promote reflection and research on practice as a central aspect of the school.
>
> *Principle Six.* Inventing a new institution. The foregoing principles call for such profound changes that the Professional Development School will need to devise for itself a different kind of organizational structure, supported over time by enduring alliances of all the institutions with a stake in better professional preparation of school faculty. (Holmes Group, 1990, p. 22)

THE HOLMES GROUP PRINCIPLES EXAMINED

Embedded in the concept of an authentic PDS is the notion that teaching and learning for a lifetime of understanding is crucial. Rather than acquisition of isolated facts, learning is an increasingly sophisticated process. Under this model, one measure of the effectiveness of schooling is not what students have learned but whether or not they have learned how to learn and continue to do so. Learning, therefore, is inclusive of all disciplines yet irrespective of any particular discipline. Along this same line, the focus of education must be on upon understanding rather than content mastery. This approach to learning requires the development of inquiry, reflection, problem solving, application and evaluation skills that allow a learner to adapt these process operations to lifelong experiences and challenges that extend far beyond the boundaries of public educational institutions.

According to the Holmes Group (1990, p. 23), the concept of lifelong learning that is envisioned for the PDS model is intrinsically interwoven with the concept of melding students into a community of learners. A curriculum that stresses mastery for only the most capable and promotes competition among students is not true to the second principle of the Holmes Group Report, and is, therefore, not appropriate. For optimal learning to occur, the class and/or school must function collaboratively. The end result of this process is a cohesive, rather than a competitive, community of learners that provides equal support for citizens in their efforts to move ahead in learning and understanding. Through this intertwining of curriculum and methodology, education's goal of promoting the cultural progress of both society and individuals can be achieved. For public school classrooms to function as a community of learners, educational successes have to include everyone, especially those who have traditionally been left behind by the educational, as well as the social communities. For schools to be effective, they have to respond to the individual needs of all the members of the learning community. Presently, America's schools are working quite well for the more academically-able and economically-advantaged segments of society, but they are failing miserably at educating the majority. The collective failure of America's educational institutions is reflected in the high dropout rates and low literacy that characterize American youths (Glasser, 1986). This dismal record has been reported in numerous comparisons between this country and other industrialized nations. The third principle in the Holmes Group Report requires teacher education to address this issue. For the PDS in particular and schools in general to be effective, they must monitor and respond to the needs of youngsters who are currently under served and for whom schools are not working. They must equalize rather than maximize the social barriers that are so prevalent in the broader society and that contribute to the lack of success that many learners experience in school.

For PDSs to be authentic and, therefore, effective, the community of learners specified above cannot stop with school students. In addition to this group, educators in PDSs must model for others the process of lifelong learning articulated in Principle One. This means that experienced teachers, teacher educators and school administrators must continue to adjust their professional referent to the state of "best practices." It requires adapting what is known about effective teaching and learning to the teacher education curriculum as well as facilitating the application of this body of knowledge in applied settings. One of the problems in traditional academia is that research is conducted in laboratory and/or academic settings, and the results also tend to stay in the ivory tower. This fourth principle of the Holmes Group Report requires that the gap between generating theoretical knowledge and applying best practices be bridged. According to the PDS model, teacher education is a conduit through which this process can occur.

Closely related to the concept of incorporating best practices into the curriculum is the notion of generating best practices. An authentic PDS must serve as a learning laboratory for reflection and inquiry into the nature of learning along with the most effective methods of teaching school students, pre-service teachers, and practitioners. There is general agreement that schools, as they currently exist, are failing a great number of America's youth, but no one seems to agree on exactly what should be done about it. The process of experimentation in applied settings is designed to shed at least some light on improved techniques for refining education at all levels.

Finally, since the type of schools and teacher education programs envisioned by the Holmes Group does not presently exist, the PDS will have to be invented as a new institution. This new institution must reflect the first five principles upon which the PDS concept is based (Holmes Group, 1990, p. 73). It requires new alliances that are child-centered, collaborative and that endure over time. It requires a reconceptualization of the curriculum as well as the methodology that is used for imparting knowledge to students in collaborative, as opposed to competitive ways, and it requires a redefinition of the roles and responsibilities for both school-based as well as university-based teacher educators.

In summary, it seems that this newly invented institution must evidence at least three broad conceptual characteristics. First, it must promote and achieve a model of lifelong learning for school students, teachers, teacher educators and administrators. Second, it must succeed in building an inclusive community of learners whose achievement and well-being are maximized. Finally, it must foster enduring alliances that promote the active inquiry and reflective praxis upon which the advancement of knowledge and practice of education in general depends. For a PDS to be considered authentic, it must exhibit in theory, as well as in practice, each of these characteristics.

AUTHENTICITY AS A CONSTRUCT IN DEFINING THE PDS

Having been out of vogue for years, authenticity, as it relates to the practice of educating and evaluating learners at all levels, is a newly rediscovered construct in the field of teaching. Ultimately, however, for the primary purposes of the Holmes Group to be realized, the construct of authenticity must extend well beyond the theoretical constructs proposed in the Holmes Group Report (1990). PDSs must improve the whole of the teaching profession by establishing more effective preparation for pre-service, novice, and experienced teachers, while simultaneously increasing knowledge of effective teaching, curricula, and methodology. And, they must do so in ways that are truly reflective of the basic principles that define the PDS. The construct of authenticity, then, must encompass authentic learning as well as authentic assessment. The impact of a network of authentic PDSs, as conceived by the Holmes Group, might be depicted in the diagram presented as Figure 1.

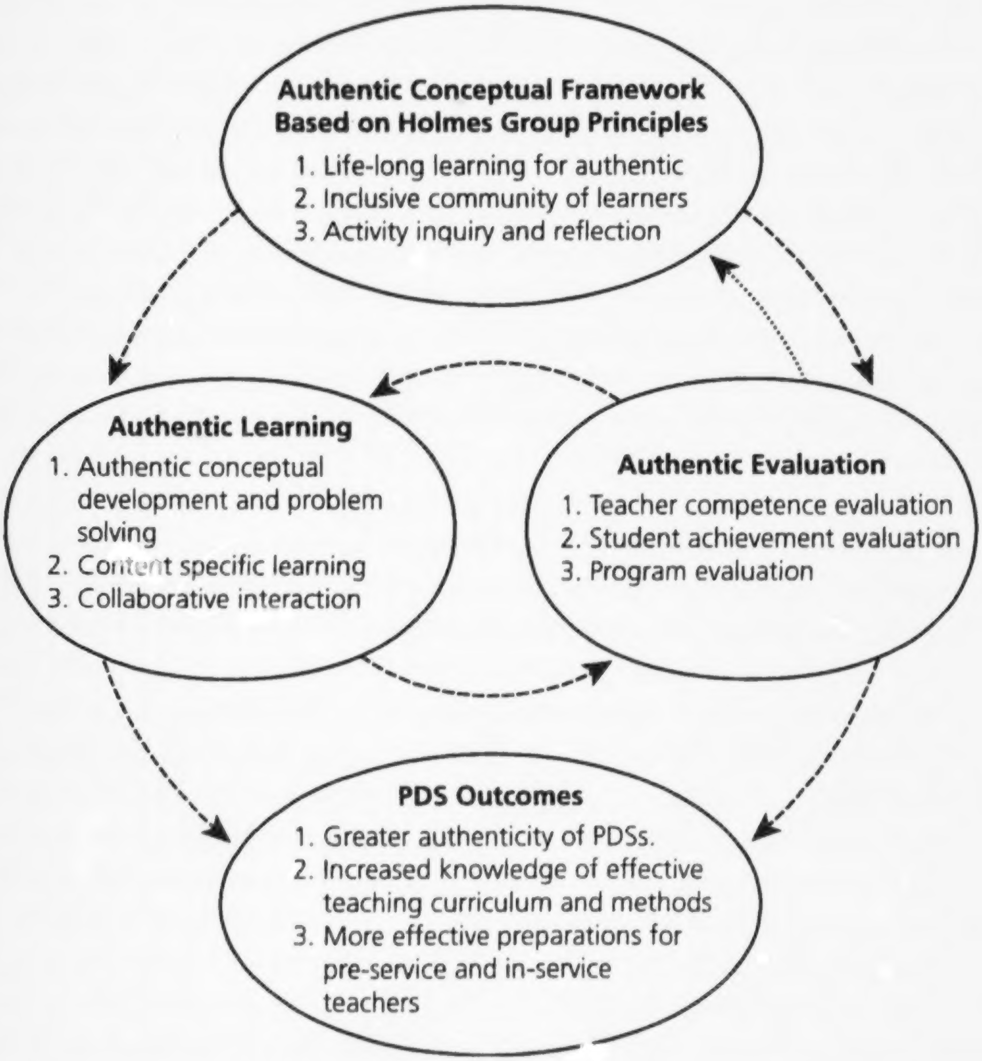
Authentic Conceptual Framework Based on Holmes Group Principles
1. Life-long learning for authentic
2. Inclusive community of learners
3. Activity inquiry and reflection
Authentic Learning
1. Authentic conceptual development and problem solving
2. Content specific learning
3. Collaborative interaction
Authentic Evaluation
1. Teacher competence evaluation
2. Student achievement evaluation
3. Program evaluation
PDS Outcomes
1. Greater authenticity of PDSs.
2. Increased knowledge of effective teaching curriculum and methods
3. More effective preparations for pre-service and in-service teachers

Figure 1. Elements of authenticity in professional development schools.

As can be seen in the diagram, the philosophical principles of authenticity stipulated by the Holmes Group determine the curriculum for authentic learning as well as what constitutes valid and reliable assessment of student achievement, teacher competence, and program effectiveness. The interaction loop between authentic learning and authentic evaluation is continuous, with the results of evaluation continuing to revise and refine what constitutes the most efficacious learning methods, materials, and experiences for the entire community of lifelong learners participating in the PDS. Thus, the PDS will emerge as a well-researched and ever-changing, increasingly authentic representation of its basic principles.

AUTHENTIC LEARNING

The concept of "real life educational experiences" permeates every aspect of an authentic PDS and is referred to in most publications in which they are discussed. Even though this concept dates back to Dewey (1959), it is only in the last few years that the professional literature has readdressed authenticity as a theoretical construct that is necessary for promoting knowledge. This concept must be emphasized, elaborated and examined not only to protect the integrity of the PDS and assure its continuation and success but also to serve as a basis for educating and evaluating the teacher produced by these new institutions and the students they serve. Without attending to the construct of authenticity in each phase of learning in the PDS, serious validity issues will confound all aspects of research into their effectiveness.

The professional literature on authentic learning experiences indicates that several general characteristics are relevant to PDSs. The first of these characteristics stresses the importance of basing a curriculum on problem-solving and concept-development in a context that is viewed by the student as personally relevant to future vocational employment. Second, the learning experiences must be situated within a context and culture that maximize learning and enhance the generalization of new skills to future employment environments. Finally, the learning experiences must be collaborative in nature and facilitate the mutual interdependence of the wide range of learners involved in the Professional Development Schools' learning environments.

In a recent address delivered to the American Educational Research Association, Radinsky, Bouillion, Hanson, Gomez, Vemeer, and Fishman (1998) proposed a framework for authentic learning. They applied this new framework to the development of their "mutual benefits model." As the name implies, this model is designed to benefit not only the student but also the learning context in which the instruction takes place. Some aspects of their model seem equally appropriate for application in the collaborative learning environments specified for the PDS. According to their model, students and teachers are brought together within a professional community. Collectively, they undertake a task that is relevant to all parties, the completion of which, by definition, requires mutual interdependence.

Barab, Squires, and Dueber (2000) modified the work of Radinsky et al. (1998). They propose what is referred to as a "co-evolutionary model" designed to promote technological competence in perspective teachers. This model distinguishes between three types of authenticity. They consider all three of these to be crucial to the success of any experience that meets the definition of authentic learning. Each of these three variables appears to be equally appropriate for use in a model of authenticity that is appropriate for PDSs. According to Barab et al. the model must, first, have factual authenticity or present a curriculum that bears a striking resemblance to the demands of real world situations. With factual authenticity, the focus is on establishing a curriculum that requires constructing solutions to problems that simulate real-life problems. In other words, no matter how complex the problem solutions might be, if the student will never encounter them again in a vocational situation, they are inauthentic and of very little practical value. The emphasis, therefore, is on the problem rather than the context.

A second aspect of authenticity involves creating for the student an experience that is perceived by him/her as contextually authentic. No matter how legitimate the experience may be, if the student does not make this connection of personal relevance, the teaching opportunity has lost value. As a result, it is imperative for students to perceive that their learning is directly related to an authentic community environment that either has, or will have, significance in their lives. One of the easiest ways to facilitate this connection is by having the student become part of the target community. By so doing, the learner clearly sees the relationship between what is being taught or practiced and the requirements of his or her future vocation. This aspect of authenticity, in and of itself, initially served as the rationale for establishing field-based teacher education programs.

Finally, according to the co-emergence model, the authentic experience must involve the expertise of all parties involved. Again, this is consistent with the Holmes Group Report (1990) and would imply that the expertise and experience of not only university-based teacher educators but also of school-based teacher educators, administrators, and pre-service teachers are contributing to the design and delivery of the curriculum. This collaborative effort is intended to contribute to the accomplishments of both the PDS as they relate not only to the quality of education for students and to the quality of education for pre-service, novice and experienced teachers. As with the teaching hospital, university faculty would be provided a venue for inquiry and a feedback cycle for renewal as well. This action-research praxis would be continuous and mutually beneficial to all parties involved.

Radinsky et al. (1998) and Barab et al. (2000) propose models of authenticity that are closely related to the learning theory posited by several authors who are currently writing in that field. Possibly this relationship between models and theories could be adapted and expanded upon in its application to PDSs. For example, such a model might also include a variable of authenticity that is based on work begun by Brown, Collins and Duguid (1989). Their interest is in situated cognition and the culture of learning. These authors concern themselves largely with conceptual learning as opposed to problem solving. The rationale for conceptual learning benefitting from being context specific and embedded in the culture to which it is ultimately applied has several components. One is based on research conducted by Miller and Gildea (1987). They compared the number of vocabulary words learned in authentic contexts to those learned in academic settings. They discovered that learners exposed to vocabulary words in authentic settings such as reading, listening, and talking mastered many more words and did so effortlessly. Hopefully, in teacher education, students' conceptualizing curriculum in an authentic context will allow for the mastery of more and more sophisticated constructs than would be possible in a traditional academic environment.

Another reason Brown et al. (1989) stress the importance of situation (or context specific) learning involves the generalized use of concepts developed. According to these authors, it is necessary for concept development to be contextual in nature because it increases the appropriate use of the concepts in future situations. They cite the example of having students memorize definitions of vocabulary words. An "A" student who has memorized the definitions of vocabulary words may then go on to misuse the words in sentence construction. The authors attribute this "breakdown" in learning to the fact that the words were not learned in a cultural context; therefore, they were inappropriately applied. The equivalent of this in teacher education might be measuring the comprehension of Maslow's Levels of Self Actualization (Maslow, 1954) on an essay test item and later discovering that the novice teacher, who reached mastery on the test, couldn't understand why "parents who need to be there never attend PTA meetings."

In addition to the situational context of learning, the social context in which learning occurs also appears to be an important variable in authenticity. Learning theorists addressing this concept stress the importance of "discourse communities" in promoting knowledge and in enculturating members into a community (Ball, 1994; McLaughlin & Talbert, 1993). In a recent review of the literature on knowledge and thinking, Putnam and Borko (2000) note that learning in discourse communities is bidirectional in nature. These communities are designed to not only effect outcomes in the individual but also to impact the thinking of pre-existing community members and impact the community as a whole. Because discourse communities are closely related to PDSs, Putnam and Borko recommend them as a possible venue for the inquiry, critique, and reflection needed to generate new knowledge related to learning and the practice of teaching. These authors note that while little is known about how to establish these learning communities and how they might impact in-service and pre-service teachers, several experimental programs have shown promising results.

Learning theorists such as Greeno (1997) emphasize the distributive nature of authentic learning experiences. Advocates of this theory suggest that the application of learned skills is often distributed over a number of persons, each using a specific tool (or set of tools) and performing a component of a task. Because of this distributive nature of task performance, it is necessary for schools to shift their emphasis from individual competence to shared cognitive activities. By so doing, schools will insure that transfer and future application of knowledge occurs. Again, this notion of distributive learning is consistent with the learning communities envisioned by the Holmes Group (1990.) It seems to recommend not only the inclusion and application of technology and other tools into the PDS but also the adoption of cooperative learning strategies, peer tutoring, and other interactive teaching methodologies.

Based on their definition of authentic learning, other theorists emphasize the importance of yet a different aspect of the transfer of knowledge. They point out that for learning to be authentic, classroom activities must consider the ultimate goal of the formal education process. If, for example, the purpose of the PDS is to produce a community of lifelong learners, then the learning activities must promote the development of concepts and skills that are utilized long after school years have ended. In this sense, future application of learning is more important than either the distributive nature of the learning or the situational and social contexts in which it occurs.

In summary, an authentic PDS must offer authentic learning experiences. The conceptual development and problem-solving skills that serve as its curriculum must be demonstrated in a target community that evidences the application of these same concepts and poses actual problems that require solutions. Students must perceive learning activities as having these characteristics. Discourse communities must be characterized by the collaborative interaction and mutual interdependence stressed in the philosophical dimensions of the Holmes Group Report (1990) and proposed in the model designed by Radinsky et al. (1998). Finally, authentic learning must reflect the social context and distributive nature that enhance transfer of knowledge for lifelong learning.

AUTHENTIC ASSESSMENT

The concept of authentic assessment of public school students has received considerable attention for more than ten years. This interest has been generated partially in response to an increased emphasis on teaching for understanding and practical application rather than on rote learning (Darling-Hammond & Snyder, 2000). Authentic measures of student achievement and teaching effectiveness have also been touted as the favored technique for producing educational reform (Madaus, 1994). The general notion of increasing the effectiveness of assessment instruments by basing assessment data on direct application of content mastery is also referred to by some authors as portfolio assessment (Cavanaugh & Linek, 1995) or performance assessment (Baker, 1994; Bergen, 1994; Darling-Hammond). Authors writing on these subjects usually stress the importance of increasing the validity of student evaluation by having students create a product, solve a problem, or demonstrate a skill.

More recently, emphasis has shifted to the authentic assessment of both pre-service and in-service teachers. Teacher educators who advocate the inclusion of authentic assessment curriculum in teacher education have noted that there is often a discrepancy in what is practiced in teacher education and what is advocated as "best practices." These authors (Adams, 1996; Cavanaugh & Linek, 1995) point to the necessity of modeling authentic assessment in the evaluation of pre-service teachers. Consistent with the Holmes Report (1990), their rationale is that if perspective teachers experience best practices methods of instruction and evaluation, they will be more likely to model them in their own teaching.

Two recent articles have called attention to the absurdity of traditional methods of evaluating teaching and teachers (Campbell, 2000; Unwin & Caraher, 2000). Both of these articles point out that there is little relation between measures produced by pencil-and-paper tests and the effectiveness of these teachers in the classroom. Traditionally, research designed to determine the relation of such tests as the National Teacher Examination to subsequent ratings of teacher effectiveness has produced discouraging results (Andrews, Blackmon, & Mackey, 1980; Ayers & Qualls, 1979). Some authors have suggested the problem with these tests is that they attempt to measure teaching effectiveness outside the general context of teaching (Darling-Hammond, 2000) and that they fail to take into consideration the multiple strands of knowledge that must be integrated into the teaching process (Haertel, 1990; Shulman, 1987). Nevertheless, the policy of using these tests continues, particularly in initial teacher certification. These inauthentic procedures must change in an authentic PDS. In the case of teacher education then, the focus becomes one in which universities are indeed teaching what students will be required to know as teachers and then effectively measuring the extent to which this curriculum is mastered.

In a recent article stressing the need to assess teachers within the context of the teaching environment, Darling-Hammond (2000) outlines four aspects of authentic assessment that have emerged from the professional literature in this area. The first of these stresses the need to choose samples reflecting the actual knowledge, skills, and dispositions desired of teachers. She discourages the use of what she calls "remote proxies," unless they actually reflect an element of classroom skill such as planning. A second assessment tool requires determining the extent to which a pre-service teacher can integrate multiple kinds of knowledge and skills into the practice of teaching. For example, can an individual integrate theory with curriculum and methodology into an effect lesson? A third dimension requires that assessment strategies include multiple sources of information across time and in diverse contexts. Obviously, a variety of evidence demonstrated in multiple ways could lead to more valid and reliable measurement. Finally, according to Darling-Hammond, the evidence amassed in authentic assessment must be evaluated against authentic criteria and by individuals with the necessary expertise to do so.

PROFESSIONAL DEVELOPMENT SCHOOL RESEARCH

If authentic PDSs are to become a reality, the construct of authenticity must be expanded far beyond the notion of increasing knowledge about learning and the practice of teaching. It must also include not only the principles that provide the underpinnings of a PDS but also the nature and character of the school, its staff, and its curriculum. Also of concern will be the validity, or authenticity, of research efforts and the ability of the PDS to obtain true measures of program effectiveness for each of the learner groups (public school students, pre-service teachers, in-service teachers, administrators, and university faculty). This type of research must be a basis for evaluating of the performance of the PDS as an institution. If this is not the case, a new layer of validity issues arises within the context of more traditionally conceived research endeavors.

For example, the final factor proposed above by Darling-Hammond (2000) introduces another issue in the authentic evaluation of PDSs. It is quite possible to authentically assess a university student's field-based experience without that experience being authentic or true to the Holmes Group Principles (1990). Authenticity can be true to "what is" without being true to what "should to be" within the context of a true PDS. It is possible to prepare teachers extremely well to function in schools as they now exist. Teachers can be skillfully educated in field-based settings and may even be inducted into the faculty of the training site without these schools being authentic representations of the PDS as proposed by the Holmes Group.

Likewise, it is possible to conduct well-controlled research that is not based on realistic settings, and, therefore, is generalizable to realistic settings. The idea of content and context being inseparable in the generation of knowledge is a recent departure from the previously held position. This holds that for research to be generalized, it must be context neutral. Several theorists (Greeno, 1997, 1998; Lave, 1993; Petraglia, 1998) now postulate that for knowledge generated from research to be authentic, it must rise from situation specific investigation. A compelling case for establishing a connection between authentic assessment and qualitative research is posited in a recent publication by Hurst and Wilson (1997). They point out that data triangulation techniques lend themselves to using valid student assessment data as a holistic basis for program evaluation. These multidimensional techniques are based on activities routinely conducted by teachers such as student observation, interviewing, and document collection.

In addition to being reflective of the Holmes Group Principles, knowledge generated in this way might also serve another purpose—to end the debate over whether or not universities or the professional community are more influential in shaping professions (Barab et al., 2000). In a true PDS, the generation of knowledge would evolve from research based on authentic assessment of school students' achievement and well-being along with authentic assessment of teacher competence at both the public school and university levels. Research on authentic student achievement would, in turn, become a model for program evaluation. Following the continuous cycle demonstrated in Figure 1, these data would, in turn, provide ongoing research for use in validating the conceptual framework of the PDS. These data would also serve to increase the effectiveness of in-service and pre-service teacher preparation and contribute knowledge relative to the practice of teaching.

Debates over the efficacy of conflicting theories and models might also be settled as part of the outcome research of PDSs. For example, some authorities (Putnam & Burko, 2000) question whether or not PDSs are really the best place for imparting all the skills that are needed by future teachers. Their review of research in this area suggests that other contexts are more effective venues for the acquisition of some skills. They support their position with research results produced by teacher education programs that utilize other curricula and methodology. Some of these include case-based, rather than field-based, learning experiences. Also, they describe establishing discourse communities in remote locations that allow more opportunity for reflection than do classrooms. Exactly what types of skills are best developed in which context is largely unknown. Also, unknown is whether Radinsky et al.'s (1998) emphasis on the individual's perception of the relevance of the curriculum is more or less important than the situational context emphasized by Brown et al. (1989). These aspects of authenticity, along with others, pose more questions than solutions. One of the agendas of the PDS is to answer these questions, even if they risk putting themselves out of business.

TOWARD A MODEL OF AUTHENTICITY FOR THE PDS

For a PDS to be an accurate representation of the institution proposed by the Holmes Group (1990), each element of authenticity discussed above must be reflected in each component of its operation. A model depicting these various components could serve as a basis for evaluating whether or not all the elements of authenticity are present in each component of the PDS. Elements and their relation to one another could provide a valuable tool to use in determining the individual as well as the collective effectiveness of PDSs. An initial research model that could be expanded through inquiry, reflection, and refinement might serve as the foundation for initially assessing the authenticity and, finally, the effectiveness of each component of the PDS. Also, it might generate additional factors that could be incorporated into PDSs to increase their conformity to and effectiveness in achieving the ambitious principles upon which the model rests. An initial attempt at such a model is proposed below in Figure 2. Each of the elements of authenticity must be present and measurable in each component of the PDS.

REDEFINING THE UNIVERSITY

The initial stages of implementing a PDS require that a college of education and its faculty commit to its fundamental concepts. Not only is the PDS a new institution, but the university has to reinvent itself as a new institution as well. First, the faculty must be committed to making the changes necessary for providing the underpinnings for a successful PDS. In most cases, this requires that faculty take upon themselves a major retooling campaign. Most faculty members in traditional colleges of education have been sequestered within the confines of academia. As they assume a new role and adopt a new teacher education model, they will require new skills.

Faculty will be required to relinquish control. It is easy to control the individual aspects of a teacher education program when courses are parceled out in three-hour slots. When the instructional arrangement moves to the PDS model, however, things change. Responsibilities are shared, and the university instructor becomes a facilitator rather than a "dispenser of

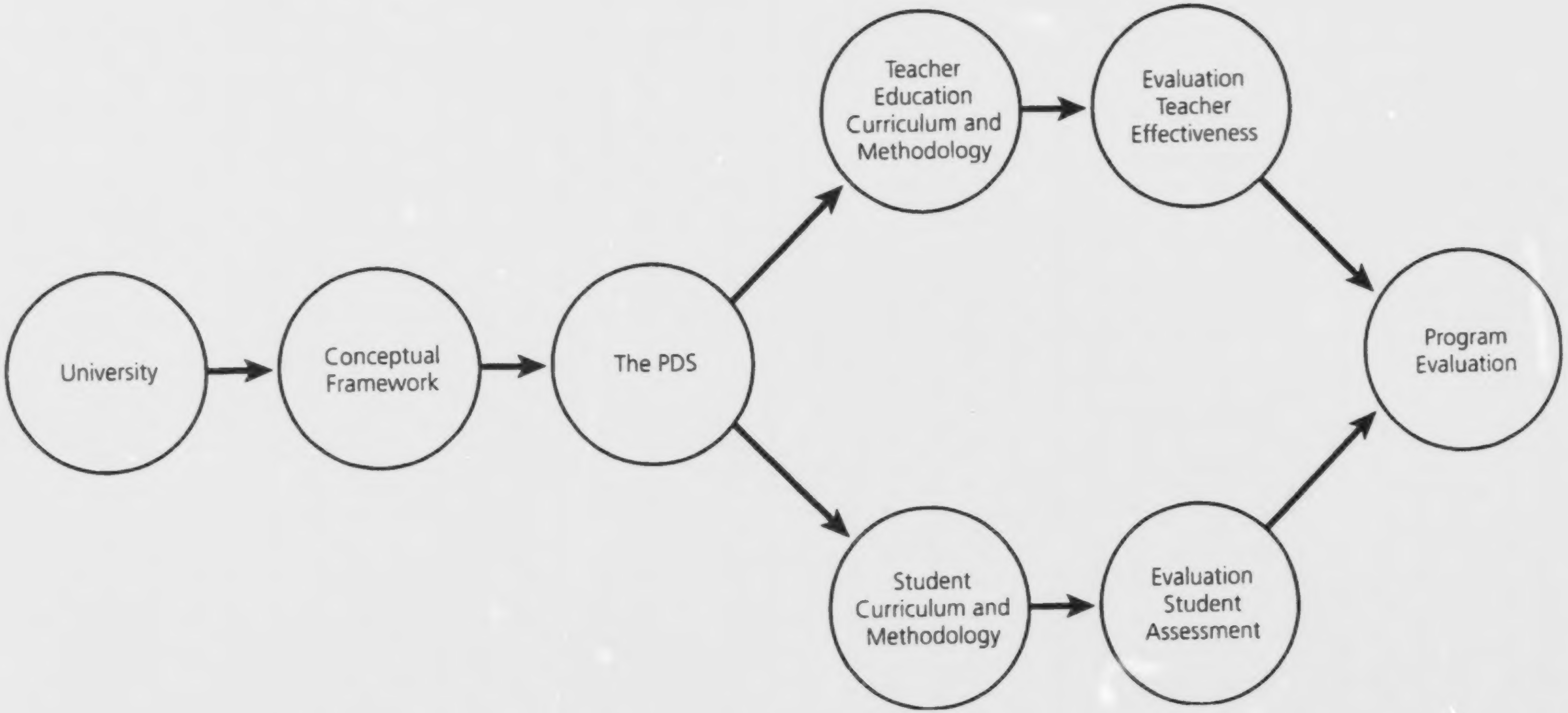
University
Conceptual Framework
The PDS
Teacher Education Curriculum and Methodology
Evaluation Teacher Effectiveness
Student Curriculum and Methodology
Evaluation Student Assessment
Program Evaluation

Figure 2. Model for implementing and evaluating authentic professional development schools.

information." The new role requires collaboration. In this case the learning laboratory, or the PDS, becomes the instructor. The future success of the PDS rests upon the willingness and the ability of the faculty to transfer learning and research laboratories from the university campus to the public school classroom through implementation of the action, research, and reflection praxis.

Faculty members must be willing to commit their time, and universities must commit their resources. The expediency of teaching three hours, administering a multiple-choice test, and grading a term paper is gone. Travel may also be required. Moving away from the lab school concept means that the PDS may be located in a different geographical area than the university. Since students are at the PDS, the faculty must be there as well. These factors contribute to making the PDS a more expensive model of teacher education and the parties involved must be willing to support the effort by committing the required time along with physical and monetary resources.

THE CONCEPTUAL FRAMEWORK

Selecting a suitable conceptual framework is necessary for developing any viable and testable model. Stark, Lowther, Hagerty, and Orczyk (1986) present a thorough rationale for including a conceptual framework in the study of pre-service professional programs. Based on an extensive review of the literature, they identify four different reasons that a conceptual theoretical framework is a necessary basis for establishing programs that educate young professionals, such as teachers, and evaluate their effectiveness.

These authors point out that comparisons not based on a framework fail to accommodate social and economic changes and, therefore, tend to become outdated and useless. Also, they stress the importance of a conceptual framework that includes constructs that allow for the integration of theory and practice, thereby facilitating the comparison of programs over time and with each other. The last two reasons they cite for the importance of a conceptual framework involve the evaluation of professional competence. They point out that these conceptual frameworks should be broad enough to include a wide range of essential constructs, yet not so broad as to obscure its important components. Specifying what constitutes professional competence is necessary before it can be authentically evaluated. On the other hand, professional competence is not a stationary characteristic. What might be considered entry-level competence would presumably be expanded with professional experience. Professional programs, however, in order to assess their effectiveness, need a conceptual framework that will allow for the evaluation of professionals at a variety of levels.

Building on the above rationale for a conceptual framework, Stark et al. (1986) designate five essential properties for them. These include: (a) a set of reasonably inclusive categories that can be examined consistently across programs, (b) a mechanism to detect changes over time, (c) a set of constructs stated in broad terms, (d) a language sufficiently broad to permit cross-program recognition and measurement of student progress toward competence outcomes, and (e) a clear focus on pre-service preparation to distinguish it from continuing professional development (Stark et al., 1986, p. 234).

It seems that the rationale as well as the properties proposed by Stark et al. for professional programs is equally germane to an authentic model for teacher education in PDSs. In the case of the PDS, the conceptual framework must, however, be expanded to address all the elements of authenticity specified in Figure 1. This might include extending the categories and constructs referred to in properties one and three, respectively, to include the entire community of life-long learners that are described by the Holmes Group Report (1990). Property four would need to consider the academic progress of not only pre-service teachers but also of school students. Finally, regarding property five, a clear focus on in-service effects is also important. For example, educators might ask, "How is in-service education conceptualized, formalized, and evaluated within the more tradition mission of colleges of education? How does it differ from, yet complement, pre-service teacher education?"

To a certain extent, the conceptual, framework of the PDS is specified by the principles dictated by the Holmes Group. These would serve as the basis for elaborating individual and unique aspects of teaching/learning. Such aspects might include the theoretical bias and the unique populations served by the PDS.

CHOOSING AN AUTHENTIC PROFESSIONAL DEVELOPMENT SCHOOL

Unfortunately, there is no master model to emulate in the selection of a PDS. The PDS in general is a newly emerging phenomenon that is still striving to define itself (Mantle-Bromley, 1998). Even if there were perfect models, the Holmes Group states that there is no one model suitable for use in defining and/or describing an "ideal PDS." Viable PDSs may, and, in fact, should, vary widely based on such variables as geographic location, demographic variables of students, and conceptual/theoretical framework for the program. At the heart of this variance or individual approach to establishing PDSs is another dimension of authenticity. In other words, for a PDS to conform to the parameters established by the Holmes Group's basic principles, it must be "authentic" not only in its adherence to the principles but also within the context and among the individuals for whom it exists.

Another dimension of authenticity, therefore, is the demographic representation of the population. In an urban metroplex, this means that the PDS has to reflect cultural diversity, linguistic diversity and, at least to some degree, poverty. Preparing teachers to work in a rural area requires the consideration of different elements of authenticity and so it should play out for the variety of individuals for whom the programs are primarily designed. Regardless of the extent to which the variables of authenticity may differ from one teacher education program to the next, it is impossible to deliver an authentic teacher education program for preparing teachers unless these considerations are addressed. For example, it is synthetic to attempt to prepare teachers for poverty schools if the PDS is located in a suburban, middle class neighborhood. For teachers to learn to teach in urban, low SES schools, they must be prepared and experience learning in a similar school.

While there is no single model that is appropriate for selecting a PDS, there are some essential characteristics of schools that might qualify for this role. For example, if a public school is to serve as an authentic PDS, it is necessary for the school to agree in principle and conform in reality to the conceptual framework upon which the teacher education program rests. The school must be one in which the faculty is concerned with creating a learning community that is collaborative as opposed to competitive—one in which all learners are included and no child is left behind—and one that can document over time that the educational and social barriers raised by society are in fact equalized and not maximized.

The teaching faculty of the PDS also has to accept ownership of its role in teacher education. This involves the willingness of teaching faculty to accept pre-service teachers into their classrooms and share responsibility. Along this same line, the pre-service teacher should be seen as a component for effectively implementing the Holmes Group Principles. They add an extra resource for creating student-centered, life-long learning for the child, and they are also a valuable asset in modeling best practices. While the practicing teacher has experience in his/her favor, the university student should be mastering current and effective learning strategies from university faculty. For a PDS to be authentic and true to Principles Four and Five of the report, this exchange is essential. When it occurs, a link is established through which the PDS's faculty members also assume the role of life-long learners themselves. Public school faculty and administrators, along with university faculty, must agree that one of the primary missions of the PDS is the in-service training and renewal of teaching faculty. Teachers and administrators must be willing to attempt and reflect upon current "best practices" teaching models and implement them in classroom settings.

This type of active inquiry and reflection introduces the importance of the PDSs involvement in field-initiated research. While this notion of pragmatism has been around since Dewey (1938), it has not always been in vogue. As mentioned earlier, one of the recent traditions of academia has been the belief that theoretical research must be conducted out of context if it is to be applicable to wide spread generalization (Barab et al., 2000). Possibly this attitude explains, at least to some extent, why "best practices" have stayed in the ivory tower while pragmatists have continued to do what they were already doing. Nevertheless, for a teacher education program to become an authentic PDS, schools that are willing to serve as learning laboratories must be either found or invented or, what is more likely, a combination of both. Administrators and teachers must agree in theory, policy, and practice with this final aspect upon which program authenticity rests.

DESIGNING CURRICULUM AND METHODOLOGY

An appropriate curriculum for the school-age learner is a major consideration in establishing an authentic PDS. The curriculum has to assure that schools actually reflect variables of individualization that are inclusive enough to create a community of learners among academically, socioeconomically, and ethnically diverse groups of students. Many professional publications emphasize this notion of individualization or child-centeredness, including the American Psychological Association (1993) in its publication of the Learner Centered Principles. Unfortunately, however, these principles are often spoken of but seldom seen in authentic application. If all students are to actually be successful in PDSs, curriculum must be matched to their current level of educational functioning. After establishing the current level of functioning, students must be appropriately motivated to execute the challenge level curriculum at an appropriate pace until mastery is attained. What is, for example, conceptualized as "the third grade curriculum" must be redefined. There is no set curriculum that is appropriate for all third graders. The appropriate curriculum for third graders is one in which all learners in the classroom are achieving at the challenge level. This may be considerably above the traditional third grade level for some and below for others.

Finally, the PDS must have a wide variety of program offerings. If the teacher education program prepares teachers for bilingual classes, that emphasis must be reflected. The PDS must also offer a full-service continuum for students with disabilities. This continuum, commonly referred to as Deno's Cascade (Deno, 1970), begins with very isolated placement of a small percentage of students with disabilities. At each level of the cascade, the proportion of students escalates. At the top of the cascade are inclusive classrooms with a variety of special education services and co-teaching models (Mastropieri & Scruggs, 2000). If future teachers are to function productively and conform to legislation related to educating children with disabilities, they need be educated in a PDS that offers this wide range of services. The focus, however, must be primarily on inclusion strategies that create a community of classroom learners in which the achievements of all are celebrated.

An authentic PDS requires an examination of not only the curriculum but also the methodology utilized in the classrooms. Didactic learning will be minimized, while continued emphasis remains on other models like cooperative learning and peer tutoring. Unique groupings across grade levels and between and among classrooms may be indicated. These groupings along with motivational and classroom management strategies that are inclusive rather than punitive will be required. For the school to become a productive learning community, each child must succeed and be included rather than fail and be subjected to punishment and isolation.

Authors addressing teacher education reform have discussed several factors that impact authentic student learning in the PDS. For example, several authors have noted the additional demands placed upon teachers as a result of a more complex curriculum and a more diverse group of students (Darling-Hammond, 1997; Shulman, 1987; Sizer, 1992). As classrooms accommodate more diverse students, teacher effectiveness will increasingly depend upon the ability of the teacher to address such factors as different student learning styles, unique background experiences, and varied cultural and linguistic characteristics (Hollins, 1989; Moll, 1988). With this diverse student population, a teaching process that promotes life-long learning, application, and reflection must capitalize upon unique aspects of student thinking (Tikunoff, 1985) and knowledge construction (Darling-Hammond & Snyder, 2000). The process must extend students' knowledge base through the implementation of a curriculum that is relevant to their personal experiences. The curriculum must be based on activities that are personally and culturally relevant (Garibaldi, 1992; Irvine, 1990).

The teacher education curriculum and methodology must change as well. Essential concepts related to the science of teaching must be delivered in authentic situation specific contexts. The art of teaching must be developed and refined through experimentation and reflection. The curriculum for both pre-service teachers and public school children must become more constructivistic. Numerous professional publications attest to the efficacy of both situativity and constructivism (Nicaise & Barnes, 1996). For the pre-service teacher to become a life-long learner, the emphasis should be on problem solving and developing skills in the inquiry, experimentation, and reflection praxis. Equipping teachers in this way would enable them to embark on a career knowing that they will never know all the answers and knowing that teaching is, in fact, a process where "best practices" evolve to real live problems from trial solutions.

Two faces of in-service education belong to the school-based teacher educators (SBTEs) as well as university-based teacher educators (UBTE). As life-long learners themselves, public school teachers and administrators must continually experiment with and acquire "best practices" identified by the profession. UBTEs will be responsible for facilitating exposure to curriculum and methodology that increases the SBTEs' knowledge of "best practices" instructional and classroom management strategies for school students. They must also, however, refine their techniques for developing skills in the second population of learners—pre-service teachers.

The university-based teacher educator has a similar responsibility for refining instructional and classroom management curricula and methodology in teacher education. The emphasis in this case, however, is primarily on structuring the scope and sequence of information and facilitating the generation of problems and their solutions. The SBTE's role, on the other hand, is likely to stress the more applied aspects of application, feedback, and reflection.

The UBTE, however, also has a dual role. First, as a life-long learner, she or he must constantly update personal teaching skills with the most current "best practices" teacher education strategies for the pre-service teacher population. This must be accomplished while experimenting with action research in student learning in all components of the continuum. This individual is also required to become skilled at introducing "best practices" teaching skills into the in-service/teacher renewal cycle. These are equally difficult tasks, requiring objective self-examination while delicately motivating others to embark on self-examination, experimentation, and what is often painstaking change.

AUTHENTIC ASSESSMENT

To the extent that authenticity is discussed in the professional literature, publications concern themselves, primarily, with authentic assessment. Authentic methods of evaluating student learning have been advocated for both public education programs and teacher education programs. These methods require learners to demonstrate their knowledge, skills, and abilities by applying the curricula to pragmatic tasks (McTighe, 1997). According to Wiggins (1989), authentic assessment has four necessary characteristics. First, the student creates a product that reflects mastery of the skill being taught. Second, the student is told throughout the process what constitutes acceptable and/or exemplary performance. Third, student learning is promoted by encouraging reflection and refinement of individual performance by comparing it to a previously determined standard. Finally, students present their products and the rationales that they employed in developing or accumulating evidence.

For these principles of authentic assessment to be applied to student curriculum mastery in PDSs, numerous changes have to take place. First, since student learning is a continuous process, evaluation must also be progressive in nature. What a student, or students, know at any given point in time is not particularly relevant in isolation. It is more significant in terms of what was known before and the extent to which the knowledge has increased in volume, complexity, or applicability. Also significant is whether or not the learning process has been one that is likely to promote life-long inquiry and learning.

Because of these differences in the way assessment is conceptualized, the process must take on different characteristics. Pencil-and-paper knowledge of basic facts is not particularly important. Basic skills would, instead, be assessed on the extent of their usefulness to the learner in solving problems or reaching other contextually significant ends. For example, the ability to communicate ideas through accurate writing would be more important than spelling words in isolation. A similar analogy could be drawn with regard to mathematics. Computing problems on a work sheet would be less significant than solving "real life" problems mathematically.

These changes in the conceptualization and characterization of assessment require different instruments as well. Standardized, norm-referenced achievement tests would not be very useful. Neither would other types of pencil-and-paper tests. Several authors have pointed to the inadequacy of these instruments in assessing learners in diverse learning environments that are context specific (Darling-Hammond, Wise, & Klein, 1998; Haertel, 1990; Shulman, 1987). Most recommend performance tests, portfolios, artifacts, and simulations or other attempts to measure the ability of the learner to integrate, synthesize, and apply information in unique contexts and to real-life problems. Darling-Hammond and Snyder (2000) point out that there is a growing body of evidence to indicate that this type student assessment assists teachers in evaluating not only students but educational theory and their own teaching effectiveness as well.

The same issues that apply to student learning are also relevant to teacher education and the facilitation of skills in public school personnel, pre-service teachers, and university-based teacher educators. In an authentic PDS, not only pre-service teachers but all educators must be authentically evaluated in relation to several standards. First, are their learning experiences actually designed to foster the principles advocated for PDSs? If so, do they discriminate between those learners who have mastered the skills and those who have not? Finally, does the attainment of these skills actually prepare them to be more capable of maximizing the achievement and well-being of children? It is not until these questions are answered that the professional can embark upon the task of program evaluation.

It can easily be seen from the numerous elements required of an authentic PDS, that program evaluation is a considerably more complex proposition than has been undertaken so far. The program must first be evaluated in terms of the degree to which it conforms to the original principles proposed by the Holmes Group (1990). If it is, in fact, a genuine representation of this newly conceived institution, then the question becomes one of whether or not the PDS actually does a superior job of maximizing the achievement and well-being of school students who are receiving their education there. If so, is it effectively transmitting the skills necessary for achieving this auspicious task to the pre-service teachers, in-service teachers, and administrators who are forming the second population? And, finally, does it serve as a laboratory for the experimentation, reflection, and refinement of "best practices" instructional and classroom management strategies? If efficacy for the PDS can be established in these three endeavors through scientific rigor, then, the question becomes, "Which aspects of the program contribute to superiority and which might be deterrents?"

BARRIERS TO IMPLEMENTING AN AUTHENTIC PDS

As complex as the issue of implementing and researching PDSs is, it is small wonder that little empirical evidence has been generated attesting to either the authenticity or the efficacy of these new institutions. In addition to the shear magnitude of the task, there are additional factors that may explain the general lack of superiority that has been demonstrated by PDSs to date.

One problem may lie in the initial mission of the Holmes Group (1990). The report authors did not call for educational reform in general. Instead, the mission was limited to improving the education profession by maximizing school student achievement and well-being, educating pre-service, novice, and experienced teachers, and researching methods for improving the knowledge and practice of teaching. It should be within the purview of a professional school to redesign its modus operandi. So, why some ten years after the fact has the profession not seen greater evidence that the initial three purposes of the Holmes Group Report have been realized? The answer to this complex question may lie in nature and structure of the American educational system as it exists from the ground up or, maybe in this case, from the top down. Approaching the subject from either direction, one finds that the system is replete with barriers to reform.

In a recent article, Portman (1993) calls attention to the fact that despite many innovative efforts, teacher education has remained essentially the same for the last 50 years. She goes on to elaborate 28 factors that she believes serve as barriers to reform. The impediments discussed in her article relate primarily to the social dynamics of change within a university structure. They include such issues as sponsorship of change, lack of support, programmatic concerns, and proposal deficits. Certainly, these social dynamics are equally relevant to the implementation of authentic PDSs. Some of these barriers are straightforward. They include such things as obtaining the necessary time and money to create these new institutions. Also, in bureaucracies resources allocated for one educational purpose are denied another. Competition is fierce, and, as has often been noted, colleges of education are generally not held in high esteem. This factor disadvantages them when competing for funds. Also, the university reward structure is rigid, making it difficult for faculty to experiment with new vocational endeavors that may not be rewarded by the salary/merit structure.

Other more illusive barriers also exist within the university. In fact, the university infrastructure, in general, is not conducive to implementing PDS training. For example, the previous learning experiences that university students have had do not equip them for learning in a newly conceived educational environment. Also, the process of reflection and inquiry upon which the action learning praxis is established is not suited to delivering instruction in finite subject matter areas and across three-hour-per-week time slots. Neither is this an appropriate venue for the situated and constructivistic activity models that are now generally advocated for learning/knowledge acquisition at all levels. The more the traditional university calendar can be ignored, the greater the probability that an authentic PDS can emerge.

Then, there is the issue of assigning grades. Traditionally, university students have traded effort for grades. They are willing to work hard to master the material at hand, not because they believe the result of learning will be personally relevant, but because good grades are meaningful. They believe that good grades will help them get a good job, whether or not they are prepared for the job. Because of students' conditioning in this arena, one of the greatest difficulties in implementing an authentic instructional experience is overcoming the obstacle of grading. It is difficult to convince students to transcend this hyper concern over grades and focus on the intrinsic value of solving the problems at hand (much less convince them that the learning experiences can be mutually beneficial to them and their future students.) This problem is intensified by the reality that in most universities, no matter how authentic the learning objectives and how authentic the assessment techniques, in the end students will either earn an A, a B, or a C. As long as PDSs allow themselves to be the victims of these traditional grading policies authenticity will remain a step removed for both school and university students. In this regard, universities can "talk the talk," but as long as they fail to "walk the walk," there will be no infrastructure of authentic PDSs that serve to improve the profession of teaching, at least as it was conceived by the Holmes Group.

Barriers are also imposed by state departments of education and/or professional licensing (or certifying) boards. These include higher education agencies that may specify degree requirements and contingencies that are inconsistent with the concept of an authentic PDS. It is necessary for the teacher education program to uphold these requirements in order to maintain its status of conferring degrees and preparing teachers to enter the profession. The same holds true for certification or licensure requirements. Most states require that teachers be certified or licensed in some way. To maintain program approval the university must, again, base its program on these requirements, (including, for example, one-shot paper and pencil testing) whether or not they are consistent with the authentic training model proposed by the PDS.

The most daunting obstacles, however, in moving toward a more authentic referent in teacher education involve the realities in which the public schools exist. Most teachers, principles, and university faculty involved in PDSs would agree not only with the basic principles of the Holmes Group Report but also with the child-centered learner principles espoused by the American Psychological Association (1993). Many states have guidelines "on the books" that also espouse these types of learner-centered principles as well. The State of Texas is a case in point with its Learner-centered Proficiencies (Texas Education Agency, 1995). Sometimes, however, these same states generate legislation and policies that serve as an oxymoron to child centeredness. Unfortunately, public institutions such as schools and universities have to comply with the realities of state and local policy boards. For example, the State of Texas requires minimum standards testing of students at regular and frequent intervals during their public school years. These tests, referred to the TAAS Test, give no regard to the child's present level of functioning, background experiences, learning style or any other variable of individualization. Quite the reverse, they demand that every child has mastered an identical set of skills at a minimum level by a certain point. This type of restrictive policy orientation to public schooling fosters the unspoken, but omnipresent notion, that it is the child that has to fit the curriculum, when, in fact, all the educational theory that is espoused stresses the importance of creating a child-centered orientation.

An example that reflects how deeply this type thinking is embedded in the American educational system was recently published in *The Journal of Men and Masculinity* (Sax, 2001). The author proposed a recommendation that boys be withheld from kindergarten until the age of six. Essentially, the rationale was to provide an extra year for them to "catch up" with the curriculum. This well-intentioned article offered the suggestion as a means of preventing so many young boys being labeled as learning disabled and referred for special education. It seems, however, that the efforts are misplaced. In an authentic PDS, the curriculum should fit the learners—not the other way around. Yet, it seems that the American educational culture is very committed to the idea that all students must perform at a specified level by a certain chronological age. The irony is that by generating a normalized distribution of scores for children based on either their ages or their grade placements predetermines, 50% of the students would be below the "average" level.

This type barrier is also seen in the grading policies used to evaluate public school students. These grading policies are imbedded in societal expectations for the schools, but they are an impediment to authenticity, at least as it is conceived by the Holmes Group's basic principles. It is difficult to compose a community of learners when they are constantly being subdivided into A, B, C, D, and F students. It is important for many parents and teachers alike to validate students' A's by the relationship of the A's to the F's. In fact, the very nature of valuing one student's success in terms of another student's failure is at cross-purposes with the concept of building a community of learners. Additionally, life-long learning is a continuous and interdisciplinary variable, and not one that is likely to be subdivided into disciplinary subject matter areas such as those that separate language arts from social studies and the like. Similarly, distinct six- or nine-week intervals during which learning stops and student evaluation begins are also not conducive to life-long learning. All of this is aside from the negative implications that these rigid grading systems have for authentic assessment.

During the last decade, the type of minimum standards tests previously discussed have been used not only to evaluate students' achievement but to evaluate teachers and schools as well. Criticisms of this type testing have appeared in the professional literature for at least a decade (Smith & Rottenberg, 1991), yet it is still common practice in a number of states (Roeber, Bond, & Connealy, 1998). A recent article by Neill (1999) details the successful attempts of North Carolina's teachers to repeal the policy in that state. The article also outlines many of the fallacies of this type testing that clearly have an adverse impact on the authenticity of evaluating not only a program's effectiveness but also the level of competence of both pre-service and in-service teachers. Still, these policies proliferate. They affect the curriculum for students and the future of teachers, the attitudes of school personnel, and the moral of all persons involved.

In addition, there is a paradox to be considered when discussing this type of testing. It involves the fact that the best predictors of students' test scores are their families' income levels and their mothers' educational levels. Therefore, schools who service the poorest students are inevitably the schools whose students have the lowest scores. Paradoxically, it is these students who need the most help that are most disadvantaged by the testing program. These students are also likely to fall short in other areas that correlate less well, yet positively, with low school achievement. These include such factors as class size, qualifications of teachers, and availability of resources (Neill, 1999). The challenge of an authentic PDS then becomes one in which the school conforms to the specifications of Holmes Principle, thus, creating a learning environment that equalizes (rather than exacerbates) the unequal social barriers placed on low socioeconomic students by society at large. So doing, however, it may require universities of the future to assume a political posture that creates governmental changes in policy and thinking. At present, however, the constraints of state rules and regulations now in vogue, along with the age-old tendency of school districts to sort less qualified personnel into schools where parents feel powerless to complain, often makes identifying schools which reflect all the elements of authenticity difficult to find.

This whole area highlights another issue that is similar, but different to the extent that it cannot be ignored in a true discussion of authenticity. The issue involves what happens when the values, rules, and regulations in the real world interfere with the philosophical authenticity that the PDS is trying to achieve? At the present time, teacher education in Texas must acquaint the pre-service teacher with the realities of testing, such as the TAAS in Texas, discussed above. Even if it weren't discussed, pre-service teachers see the negative impact of this type testing in their school placements. They observe the end of collaborative and constructivist learning, and they see the beginning of skill-and-drill. They also observe the pressure that these tests bring upon the in-service teachers and the futility that is involved in trying to "cram" the same knowledge into some students (as well as how boring this curriculum is to those who have already mastered it). On the other hand, a curriculum that stresses a community of learners who are engaged in learning for a lifetime is not conducive to preparing learners for a minimum competency, basic skills test. In this case, elements of authenticity are actually at odds with one another. Is it more authentic to educate pre-service teachers as to the way schools should be or to educate them to function in schools as they presently are? Undoubtedly, it was this type discord that made clinical and laboratory schools so popular in the last century. Clinical schools, however, are a far cry from the collaborative institutions proposed as PDSs. These institutions require a massive rethinking of both public education programs and university-level teacher preparation programs. Too often each of these group sees school reform in terms of effecting change in the other institution. In a recent book devoted to education reform, Glickman (1998) points out that each likes to provide the answers for the other. In so doing, each can escape culpability and, therefore, vulnerability.

CONCLUSION

While the profession has established a clear philosophical orientation, conceptual framework, and theoretical base for designing, implementing, and evaluating this new institution, it clearly has a long way to go. In additional to the usual barriers that interfere with instituting change, there are additional barriers created by governmental bodies as well public perceptions regarding what "schools ought to be." Removing these barriers is complicated by the fact that the persons "in charge," those with the power and those making the decisions, are those individuals for whom the American educational system in its present state was quite effective. Coincidentally, their children are, by and large, those for whom the system still works quite well. For the philosophy of the authentic PDS then to become a reality, it must become more than just a field-based program for educating teachers to the realities of public schools as they now exist. Grass roots changes will have to take place in the way the public and their local governments and state agencies perceive public schooling in this nation.

It is possible that the Holmes Group effort to reform teacher education without reforming education in general is an unrealistic objective. Without significant educational reform a university and public school partnership will have difficulty devising an authentic PDS. Until such time as they do, the authentic learning experiences that impact teacher behavior may be those referred to by Brown et al. (1989) as "enculturation." They state, "Given the chance to observe and practice in situ the behavior of members of a culture, people pick up relevant jargon, imitate behavior, and gradually start to act in accordance with its norms. These cultural practices are often recondite and extremely complex. Nonetheless, given the opportunity to observe and practice them, people adopt them with great success" (p. 35). If these authors are accurate, the Holmes Group was both right and wrong at the same time. They were correct in believing that teachers cannot be educated for what "ought to be" by creating laboratories based on "what is." They were incorrect in believing that a reform of teacher education can occur without a reform of education in general. Ultimately, for PDSs to become a reality, many of the corner stones of the American educational system will have to be abandoned.

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Part II

RESEARCH ON IMPLEMENTATION AND COLLABORATION: PROFILES THAT ADVANCE OUR UNDERSTANDING OF PDSs

CHAPTER 3

VILLAGE OF LEARNERS

Collaborative Research at a Professional Development School

Dorothy Valcarcel Craig

ABSTRACT

Reflective dialog in the PDS setting becomes the means by which teacher educators, practicing teachers, pre-service students, and high school students can examine and learn from each other. It is through dialog that convictions are on shared display in a "growth environment" where pathways are unknown. Based on this premise, this study utilized reflective dialog as a catalyst for pre-service teachers to begin constructing a reality about teaching in a public school environment. Driven by a set of overarching themes, participants: (a) engaged in dialog sessions to explore personal interactions within the PDS setting; (b) examined reflective dialog to prepare for the public school classroom; (c) encouraged and enabled high school students' voice in assisting pre-service students as they embark on their professional journey; and (d) analyzed how involvement can positively change the attitudes of participants as they become learners within a professional community. Utilizing qualitative methods, a variety of topics generated by pre-service students and high school students were explored via weekly desktop video teleconferencing sessions and onsite visits. High school students responded through reflective journal writing and dialoging on earning respect, discipline, gender differences, and the importance of extracurricular activities. Multiple forms of data were collected over a period of two university semesters. Findings from the study were utilized to strengthen the school-university PDS relationship as well as inform and improve current practices at both the university and high school sites.

INTRODUCTION

As we embark on a new century, teacher educators continue to seek practical applications—based on sound educational research—that will enable future teachers to succeed within the dynamic community of public school classrooms. Part of this process is to present a sequence of courses that provide ample opportunities for pre-service students to engage and interact with field practitioners and students in K–12 settings. These experiences allow pre-service students to continue to work within the "educational cycle" described in the 1991 report compiled as a result of a study conducted by the Sid W. Richardson Foundation Forum (1991). The educational cycle—elementary school to middle school to high school to college and back to schools as a teacher—should be seen as unbroken, not as separate parts of discrete systems. Woven into the course work of a teacher education program, carefully designed field placements, practicums, and collaborative projects are essential to ensure that this educational path remains intact. It is this premise that opens the door for teacher educators at the university level to collaborate with public school teachers, administrators, and pre-service students in order to ensure that first-year teachers understand present-day students. Collaboration among all levels is a necessary and essential factor in providing valuable experiences that will better prepare future teachers and help to ensure their success in the public school classroom.

Working within a Professional Development School environment, teacher educators are able to design field experiences that promote active engagement, application of theory, and reflective practice. Levine (1992) describes the Professional Development School (PDS) as a community where teachers, students, and pre-service students learn and where research is part of the practice. The concept of the PDS is intended to connect theory and practice in education so that they reciprocally inform each other. Working collaboratively with an educational community, the PDS operates as a school that values and seeks to use the full range of knowledge and skills of classroom teachers, school administrators, future teachers, and professors to determine the goals and pathways of success for the school, the teacher-preparation curricula, and the teaching and learning process. The collegial learning community, built as a result of the PDS, encourages: (a) teachers to help and assist pre-service students learn about the profession; (b) pre-service students to bring new ideas, viewpoints, and practices into classrooms; and (c) processes and practices to evolve that eventually improve teacher preparation. It is because of these characteristics, goals, and the community-based environment that Professional Development Schools are becoming a way of thinking about teaching and learning and a way of involving numerous stake-holders in the process of improvement (Mantle-Bromley, 1998; Grisham, Bergeron, Brink, Farnan, Lenski, & Meyerson, 1999).

However, as Fullan (1993) once stated, "change is a journey, and not a blueprint" (pp. 24–25). The success of a PDS in aiding the process of teacher preparation relies heavily on collaboration on the parts of all players who have agreed to travel together on the journey toward change. All five major groups within the PDS community—the university professors, pre-service students, teachers, administrators, and public school students—must also be aware that in order to make new discoveries that will improve the preparation of teachers, they must be willing to work through, adjust to, and connect to a process. This is achieved through the shared vision that: (a) teaching is a professional practice, (b) teaching is knowledge-based, (c) teaching is collegial, and (d) teaching is inquiry-oriented.

All five groups are guided by a common set of principles that, in turn, lend for improving the process of preparing future teachers for the challenge of teaching in public schools (Levine & Trachtman, 1997; Thiessen, 1996). This is achieved by: (a) taking a student-centered approach to teaching and learning, (b) sharing responsibilities between partner institutions, (c) providing equal opportunity for all participants, (d) engaging in inquiry-based research, and (e) continually collaborating. In addition, Abdal-Haqq (1998) suggests that perhaps the most important goal or purpose that should shape the mission of a PDS is the relationship between sound educational inquiry and how the results from such research affect student achievement—an area that has received the least amount of attention. The literature is less revealing about the nature of studies conducted in this area (Valli, Cooper, & Frankes, 1997). Furthermore reports on these studies, although short on hard data, do illustrate that there is much value in PDS teachers and their university collaborators in the following areas:

1. Engaging in collaborative action research and other forms of inquiry,
2. Achieving positive results, and
3. Using the findings to inform their practice (Abdal-Haqq, 1998).

THE VALUE OF DIALOG WITHIN THE PDS SETTING

One of the most intriguing and revealing means of gleaning information that assists in informing practice in the educational community is through reflective dialogue. Dewey (1933) believed reflective thinking is thought that requires turning an idea over in the mind and giving it serious consideration. Reflection commences when one inquires into his or her own experience and relevant knowledge to find meaning. Greene (1995) supports this by stating that a reflective dialectical relation marks every human situation—whether it is the relation between individuals and their environment, self and society, or living consciousness and object-world. In addition, Isaacs (1993) suggests that the central purpose of reflective dialog is to establish a field of genuine meeting and inquiry. This creates a setting in which people can allow a free flow of meaning and vigorous exploration of a collective background of their thoughts that, in turn, results in shared attention.

Reflective dialog in the PDS setting becomes the means by which teacher educators, practicing teachers, and pre-service students can examine and learn from their differences. It is through dialog that convictions are on shared display in a "growth environment" where pathways are unknown. Differences of opinion in this type of setting assist in expanding the potential for improvement and change because the situation creates the tensions that make learning possible (Johnston, 1997). Reflective dialogue becomes the means for pre-service teachers to begin to construct their own reality about teaching as they learn to access their beliefs through important questions and conversations. Examination of these phenomena suggest that pre-service students who actively engaged in reflective dialog learn the value of reflection in the teaching and learning process (Collier, 1999; Pultorak, 1993; Rudney & Guillame, 1990; Wildman & Niles, 1987).

Within the realm of reflective practice, Schon (1990) and Surbeck, Han, and Moyer (1991) indicate that reflection develops in a hierarchical manner. This hierarchy contains initial reflection (reflection-*on*-action and reflection-*in*-action) and secondary reflection (reflection-*for*-action). Further research organizes reflective practice into three process categories: reaction, elaboration, and contemplation (Surbeck et al., 1991). It is through the development of reflective practice and dialogue that questions, strategies, and methods emerge that challenge the "old way of doing things" in the education profession. Darling-Hammond (1998) points out that PDS strategies that succeed in improving teaching share the following features:

1. They are grounded in participants questions, inquiry, dialogue, and profession wide research; and
2. They are collaborative and involve the sharing of knowledge among educators and future educators.

If the pre-service student and the practicing teacher are not guided and given opportunities to engage in reflective practice, they are missing a valuable source of ideas, solutions, and vehicles for change.

Although reflective practice is commonplace within the PDS setting, it has been mainly limited to peer conferencing, seminars, interviews, and perhaps the most common mode—reflective journals. All of these provide considerable opportunities for pre-service students and teachers to practice reflective comparison and critical examination of their work and problems through oral and written analysis (Collier, 1999). However, the utilization of technology in offering alternative avenues for reflective dialogue can assist all those involved in a PDS in providing yet another means for collaboration and sharing.

THE VILLAGE OF LEARNERS PROJECT

The project, *A Village of Learners: High School Students Assisting Future Teachers Through Interaction, Reflection, and Dialog* employed the assistance of high school students representing the content areas of English, Math, Science, History, and Foreign Language in order to gain insights into common instructional practices. The project was a collaborative effort consisting of seven university pre-service students enrolled in *YOED 310—Methods and Strategies for Teaching*—and seven participating high school students and mentor teachers at one of the university's Professional Development Schools. Table 1 provides an overview of project participants.

Table 1. High School and University Participants— Possible Career Choices

High School Participant/Possible Future Career	*University Participant/Teaching Area*
#1—Female (Senior)—high school teacher	#1—Female (Senior)—English
#2—Male (Junior)—doctor	#2—Female (Junior)—History
#3—Female (Senior)—teacher	#3—Female (Senior)—FOLA*
#4—Female (Junior)—clinical doctor	#4—Female (Junior)—Biology
#5—Male (Sophomore)—actor	#5—Female (Junior)—Bus Ed*
#6—Female (Junior)—teacher	#6—Female (Senior)—PE/Health
#7—Female (Senior)—undecided	#7—Female (Senior)—History

Note: All Participants self-selected/volunteered for the project

All University Student Participants were female and were preparing for teaching at the middle and/or high school level (state certification—7th–12th grade)

*FOLA = Foreign Language—Spanish emphasis

*Bus Ed = Business Education

The broad goals of the project encompassed reform efforts at the national and state level with regard to establishing partnerships in order to assist with the preparation of future teachers. Specific project objectives were: (a) to conduct case-study research by employing a qualitative approach in order to gain insights that will better prepare pre-service students for life in the public school classroom; (b) to introduce pre-service students to the process of reflective dialog as a springboard for practitioner action research; (c) to collect data within the overarching themes of learning, teaching, and partnerships in an attempt to offer the best possible situation for preparing future teachers; (d) to strengthen the partnership between the high school and university through the continuation of pre-service student placement and immersion; and (e) to provide an avenue for collaboration via technology that will eventually pave a smoother road for the student teaching experience.

According to Darling-Hammond (1994), professionalism starts from the proposition that thoughtful and ethical use of knowledge must inform practice. Following the National Council for Accreditation of Teacher Education (NCATE, 1997) guidelines, the establishment of a Professional Development School imbues a vision of teaching as professional practice—one that is learning-centered, knowledge-based, collegial, and inquiry-oriented. The pre-service program for secondary education preparation includes courses that present methodology matched with theory. These courses also contain a field-experience component where university students are able to engage in classroom practices, implement methods, and become aware of the workings of a public school classroom by developing an Action Research Plan based on inquiry and practice. University students who were routinely placed in classrooms at the high school became part of the project—as did the classroom teachers who supervised them. The opportunity allowed veteran teachers to support "novice" or beginning teachers as they worked together to provide a meaningful internship matched with theory, methodology, practical experience, inquiry, and research—a process suggested by Levine and Trachtman (1997) as part of sound practice within a PDS setting.

Through the implementation of desktop video-teleconferencing, reflective journal writing, and periodic on-site visits, university students engaged in reflective dialog sessions with high school students to explore a variety of student-generated educational topics that included: (a) gaining respect in the profession, (b) components of "good teaching" practices, (c) gaining attention and keeping it in the high school classroom, (d) the importance of learning, (e) typical verses non-typical methods, and (f) developing the "essence of teaching." Using the information gleaned from the sessions, university students and public school students kept reflective field journals to record observations, thoughts, and ideas of their experiences. All information gained was shared with supervising classroom teachers, school administrators, faculty members, and pre-service students. The video conferencing sessions and on-site sessions were transcribed and coded. The researcher became a participant observer and also kept a reflective field journal to record observations and information regarding the interactions between both sets of students—high school and university.

Working within a framework of overarching themes the researcher examined data for emerging patterns among participants. This information assisted the researcher in offering insights to educators, administrators, and future educators regarding the processes of teaching, learning, and inquiry. Frequent e-mails to the administrator at the PDS site provided a means to convey ongoing findings to other teachers not directly involved in the project in an attempt to develop an awareness of how typical classroom practices at the high school and university are viewed by high school students. Through ongoing sharing, the project provided an opportunity to create an overall environment for professional practice, colleagueship, and for ongoing collective work through inquiry as outlined and suggested by Darling-Hammond (1994) in the PDS literature.

METHODOLOGY

Qualitative methods permit a researcher to study selected issues in depth and detail through fieldwork, observation, and data collection. The fieldwork is approached without being constrained by any predetermined categories of analysis, which, in essence, contributes to the depth, openness, detail, and understanding of the situation (Patton, 1990). Qualitative research is centered on creating a deep understanding and explication of social phenomena as they are observed in their own contexts. The transfer of understandings across different social situations depends on the degree to which a rich, thick description of a set of interrelationships in a social context allows for the formulation of a working hypothesis. This working hypothesis becomes the base and direction for inquiry (Craig, 1997; Erlandson, 1992; Guba, 1978).

The qualitative procedure was best suited for the study because the methodology enabled the researcher to go beyond the positivist paradigm of social facts, statistical data, and outer perspectives. By employing the recurring features of qualitative research such as: (a) prolonged engagement in a field situation, (b) using the researcher as an instrument, (c) gaining a holistic view of the situation, (d) capturing data from the "inside," (e) examining multiple sources of data, (f) uncovering patterns, and (g) interpreting soft data through description, the researcher was able to develop an understanding of the social constructs within the milieu of the situation (Miles & Huberman, 1994). The study included an explorative and descriptive focus, emergent design, emphasis on human-as-instrument, data collection in a natural setting, ongoing data analysis, and a case study approach (Maykut & Morehouse, 1994). The following general questions framed the study and provided the researcher with a set of overarching themes:

1. What can teachers and pre-service students learn from personal interactions with high school students within a PDS setting?
2. Can reflective dialog between pre-service students and high school students assist in preparing teacher candidates and/or students for the profession of teaching?
3. Can this involvement change attitudes of high school students and empower them as learners within a community?

In order to create a purposive sample as outlined by Maykut and Morehouse (1994), and Patton (1990), the researcher: (a) provided informational packets outlining the project, (b) presented project information to university pre-service students during the first week of school, (c) spoke at an informational faculty meeting at the PDS site in order to provide information regarding the goals of the project, and (d) set up a weekly e-mail exchange in order to answer additional questions. The sample consisted of self-selected participants representing pre-service students enrolled in two field-based courses, participating supervising teachers (representing the content areas of English, Math, Science, History, and Foreign Language) and high school students enrolled in respective classes at the high school site.

Data consisted of two types: (a) primary data of naturally occurring events and (b) secondary data consisting of cued responses and artifacts. Primary data of observational field notes and transcripts of video-teleconferencing sessions and on-site sessions were collected, compiled, and prepared by the researcher. Secondary data consisting of audiotaped transcripts of open-ended interviews and artifacts such as student reflective field journal entries, e-mail messages, and student artifacts were copied and examined by the researcher.

Data collection followed the procedures outlined by Strauss and Corbin (1990). Emerging patterns regarding the teaching and learning process within the high school setting were compiled, categorized, and coded. To begin the process, the researcher coded data by means of open coding. Open coding allowed the researcher to break down, compare, conceptualize, and categorize the data. Data were then selectively coded. Selective coding is a process of selecting a core category, systematically relating the core to other categories and validating the relationships by constantly comparing for refinement and further development. Finally, the researcher conducted axial coding, a procedure whereby data were put back together in new and unique ways by making connections among categories.

Once the participant group was in place, onsite visits were conducted to provide opportunities to observe students prior to beginning the desktop videoconferencing. During the first week of September, pre-service students conducted open-ended interviews with participating high school students and administered an information survey. The researcher also conducted open-ended interview sessions via e-mail with participating teachers. Open-ended interviews conducted by pre-service students were tape recorded, transcribed, and examined in order to gain insights regarding attitudes toward common classroom practices, learning, and teaching. The researcher, teacher participants, pre-service students, and high school students also recorded reflections in field journals that were copied and coded.

Desktop video-teleconferencing sessions were scheduled with personnel at the high school and university with sessions beginning during the first week of October. Each session was videotaped, transcribed, and coded. Weekly e-mail communications between the researcher, university students, and participating teachers were collected, coded, and analyzed by the researcher. Reflective journal entries were collected twice each month—from September through December and then from January through April. These were copied, coded, and analyzed. In-class sharing sessions were conducted with pre-service students and interactions were recorded as observational field notes. Monthly sharing sessions—both on site and via e-mail—were conducted at the PDS. The sharing sessions were, at times, part of the faculty meetings and, at other times, were conducted via e-mail. Observations and reflections were recorded and transcribed.

FINDINGS

For the purpose of reporting findings, events are presented in the sequence in which they occurred. Scheduling the desktop videoconference sessions had to be coordinated with equipment availability at the university and PDS site. Although several of the topics explored through dialog were not those originally scheduled to be discussed, new topics emerged as those of importance to the students—either high school students or university students—who generated them.

As the sessions progressed and students became more comfortable with each other and with the process of desktop conferencing, the topics that were originally scheduled were explored and exhausted quickly and thoroughly. When this happened, students generated their own topics. Frequently, the high school students—who were given the topics one week before the scheduled sessions and who explored the topics through reflective journal entries—were fully prepared to exhaust the topic and then move on to their own self-generated inquiries. Since three of the seven high school student participants were seniors and two were juniors preparing to attend college, these inquiries usually involved questions regarding university problems, routines, selecting a major, teaching, and college in general.

Table 2 provides a list of the dialog topics and dates of the desktop conferencing sessions. Tables 3–5 offer summaries of student responses from video conferencing sessions that took place during the fall and spring semesters. Patterns found throughout student responses were as follows:

1. Positive response toward high school experience,
2. Offering advice,
3. Taking responsibility for learning and actions in general,
4. Consideration of learning styles, and
5. Questions regarding "life after high school—university life."

Table 2. Schedule of Desktop Conferences and Onsite Dialog Sessions

Date of Conference/Onsite Session	*Topic for Dialoging*
Trial Run Session—September	Equipment Test
Session #1—September Desktop Video Conference	What is respect?
Session #2—October Desktop Video Conference	What is important for high school students to learn in order to prepare for university classes?
Session #3—November Desktop Video Conference	Grading or assessment?
Session #4—February Desktop Video Conference	Extracurricular activities—are they necessary and how are athletes treated?
Session #5—March Desktop Video Conference	Discipline—what advice can you offer?
Session #6—April Desktop Video Conference	Gender—is it an issue?

Table 3. Summary of Student Responses from Video Conferencing Sessions—Fall Semester

Session/Topic	*Summary of Student Responses*
#1 What is Respect? How can a new teacher gain the respect of the students?	Treat all students with respect! Don't cross "the boundary with students"—don't try to be too much of a friend to students; Try to get on students' level—try to relate to their problems and offer advice; Don't get "above" students to show how much you think you know; You will make yourself more susceptible to be "taken advantage of" if you get too close to your students; From the first day, be disciplined; The teacher's age doesn't matter—you can be "old" and still gain respect; One teacher that's old—around 40—helps you figure out what you want to do in life—that's the sign of a good teacher.
#2 What is important for high school students to know?	They need to know information that will help them in college; High school students must know what they want to do in the future. If they already know this then they can relate everything they have to learn with what they will be doing in the future; There should be specialized curriculum that gears all students up for college; Students should have to take 3 years of foreign language, some fine arts classes, math and that's it because those are important; I don't think high school prepares you for the freedom of college. But, some teachers treat high school students like they're in college…some students don't take these classes seriously.
#3 Grading versus Assessment	Grades are different than from what students actually learn; Teachers must use multiple forms of grading—not just tests because some kids are not good at that; Different forms of grading are really needed for seniors because you get a better picture of what you are weak in and this helps to prepare for college; It's good to give unit tests and then use different forms of assessment—like projects, papers, etc., this helps students understand the material better.

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Table 4. Summary of Student Responses From Video Conferencing Sessions—Spring Semester

Session/Topic		*Summary of Student Responses*
#4	Extracurricular Activities Are athletes treated differently?	Definitely needed because they help students become more "well-rounded;" Membership in anything organized—sports, clubs, teams—helps you keep up your GPA because there are always requirements for membership; Extracurricular activities help students mix their academics with socialization and this is good; But, being a member sometimes stereotypes you—like the "dumb jock" image or the "cheerleader" image; Sometimes, the teacher being a coach distracts him/her from being a teacher, so beware; Sometimes being on the football team is detrimental because it's hard to keep up with all of the practices. Then, your GPA goes down and you not only lose there, but you get put on probation. So, athletes are treated harsher. When teachers are coaches, they treat the athletes as "normal" students—but they seem to always expect more of them; Teachers should make the distinction between coaching and teaching—the coaches sometimes talk too much about the previous game to the athletes in class…like they're in a secret club or something; I'm a cheerleader and I know we are stereotyped—even at this school. But, not everyone knows that the cheerleaders have to maintain a certain GPA. If all teachers knew this, then maybe we wouldn't be treated like…you know, dumb cheerleaders.
#5	Discipline What advice can you give us?	Students should automatically do well without expecting rewards; If you follow rules as a student, you help yourself…but when it comes to setting rules, the popular kids really decide because they're more vocal; I prefer teachers who allow students to help make the rules–most teachers here do this. Students should have impact on the rules for specific classes…but teachers should give guidelines. This would be the best way; Individual students should decide their own consequences when it comes to poor academics; Consequences should involve students being required to do something that they don't want to do—not just in school or out of school suspension; If any rewards are given, they should be relevant—like free homework passes; There should be SGA (Student Government Association) trials for misbehavior.

Table 5. Summary of Student Responses from Video Conferencing Sessions—Spring Semester

Session/Topic	*Summary of Student Responses*
#6 Gender—is it an issue?	Be sensitive to all students' needs—both male and female; Males are always more comfortable in Socratic Seminar sessions, so teachers need to encourage the female students more; During class discussions, males are more vocal and more aggressive—this makes them seem a little less intelligent...more uncontrollable. Teachers then begin to treat them as if they are less intelligent than the females; Male teachers are usually "memory and fact-based" while female teachers add more "feeling"—we need a mixture among both sexes; In classes like P.E. and Wellness, males are more active—if they're not, then they are looked on as being "sissies"—or feminine; Females are, of course, more aware of their bodies, but this is because of the way male students and teachers treat them; In our society, females are expected to excel in academics—but teachers should have high expectations for all students.
#7 General advice on teaching (Onsite Session)	It is best to give a lecture and then have students do some "hands on" stuff. That way the class is more interesting; Remember, you need variety, but if you give too many "hands on" assignments, some students feel like they're just playing; Interaction makes the most difference. Students have different learning styles. Teachers should use different styles of teaching to adapt to the different learning styles; The teacher's reputation counts, not the subject he/she teaches. If the teacher has a "good" reputation, then the subject matter is usually interesting; If the students feel that the teacher hasn't planned before the class period, the teacher is in trouble; Don't be too lenient. Students want structure in order to learn. Remember that you can take the easy way out and be a teacher that's "too easy." Or, you can be a good teacher and be "hard." You have to ask yourself, "Do you want to be liked only—or do you want to be a good teacher?" You should do it all—give hard work, teach, and have a good relationship with your students; Be prepared! If you're not prepared, you lose everything...respect, students...everything; Let students know expectations up front; You should always be professional. One teacher here is very professional. He's a great teacher because he loves his subject and he invites you to come to ask questions.

High school student participants were generally in agreement as indicated by their responses. Pre-service students indicated in reflective journal entries after the first desktop session that they were: (a) generally "impressed" with the high school students, (b) that the high school students "seemed flattered to be part of the project," (c) "were very articulate and at-ease with the desktop procedure," and that (d) "the high school students were easily engaged" throughout the session. Perhaps the only problem—if this can be perceived as a problem—was that the high school students were almost over-prepared in that they had fully explored the topics that were originally scheduled for the first few sessions. In addition to dialoging on respect during the first session, the group explored the topics of advice for new teachers and other general classroom experiences that they elected to share. As the dialog progressed, university participants noted responses that were later shared with other students enrolled in these courses during regularly scheduled class periods. This enabled additional dialog sessions that were not anticipated and that were explored after each subsequent video conferencing session. After each session, the university students were amazed at the amount of "university-related" questions that the high school students generated.

The next desktop video conferencing session topic centered on implementing Socratic Seminars in the high school, and students gave responses that were in favor of the seminar method, then quickly moved on to "drill" the university students once again regarding attending college. Questions generated from high school students (Table 6) included:

How do you know what you want to do for the rest of your life when you are only a sophomore in high school?
How do you know what to major in?
Do think it's a good idea to take as many math classes as you can so that you will do better in college?
What's the difference between a university professor and a "regular" teacher?
What does a dorm look like?
How large is the room?
Where do you eat and do you get enough?
How hard are the classes?
How do you know which professors to take?
Do you ever get frustrated with all of the classes?
Is the library adequate?
Are there enough computers?
Are the classes boring in general?
How do you know which classes will prepare you for the work force?

Table 6. Questions Generated by High School Students— "Life After High School"

1. What does a dorm room look like?
2. How big is the room?
3. Does it have carpeting?
4. Will there be enough room for clothes, books, and other stuff?
5. Where do you eat...do you get enough food?
6. Can you eat in the dorm room?
7. How hard are the classes?
8. How do you make friends...you know, meet people?
9. What if you hate your roommate?
10. How do you know which professors to take?
11. What do you do when you get a bad professor?
12. Do you ever get frustrated with all of the classes?
13. Is the library adequate?
14. Are there enough computers?
15. Can you have a computer in your dorm?
16. Is there cable?
17. Can you have an Internet connection in the dorm?
18. Are the classes boring in general?
19. What if you oversleep...who helps you get up?
20. Is there a certain time you have to be in your dorm room?

Note. All questions generated by junior and senior high school participants.

Because of the interest in university life, the researcher reexamined the original high school student information surveys and found that parents of six of the seven students were not college-educated. As a result of this finding, student participants were later asked if they would be the first in their respective families to attend college. The six students cited responded "yes," which could explain the high degree of interest and the large number of participant-generated questions regarding attending a university.

In addition to the desktop video conferencing sessions, several onsite sessions were conducted at the PDS. A video recorder was set up to tape the first onsite session. Students were provided with materials such as markers, butcher paper, pens, rulers, and pencils and were asked to select their favorite content area subject and then design an "ideal learning environment" that would facilitate the optimal level of student understanding. Then students were given a 35-mm camera and asked to find a classroom that was most conducive to learning in a particular subject area and take

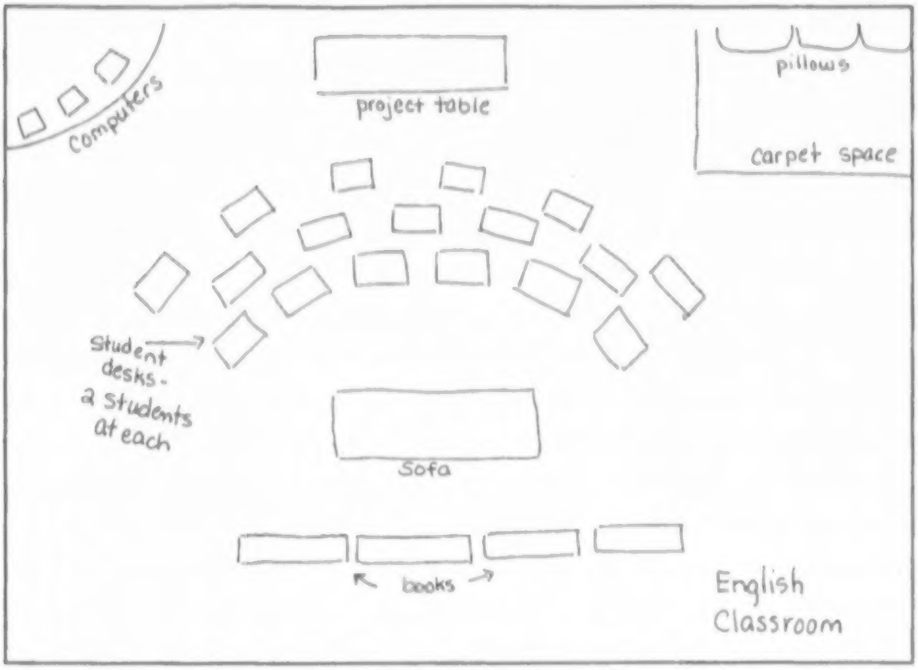


Figure 3.1. Room design—high school English classroom. *Note:* Student-designed "ideal" English classroom set up for Socratic Seminars, senior projects, enjoying literature, and "computing." Designed by two high school student participants—one senior and one junior.

several pictures. The room designs (Figure 1) and photos were later shared with university students in their courses. High school students also engaged in reflective dialog as they shared their designs. Responses were as follows:

> If the teacher is a good teacher and has a boring room it doesn't matter. It's the teacher that makes the difference.
>
> I don't like anyone in front of me. It doesn't matter if they're behind me, but I don't like them in front of me. The best rooms are "U-shaped" or in a circle.
>
> The teacher's desk should be behind the circle. The teacher should get into the circle or sit in a chair so that the teacher is part of the student group.
>
> In math, students should be able to work in groups because they learn from each other. Students can explain things better than teachers sometimes. I don't like too many decorations that don't have to do with school. This makes me uncomfortable. I don't like that. Decorations should relate to school and subjects.
>
> The ideal classroom should be one where the teacher is not the focus. I think students should be more of the focus with the teacher on the side or within the group. (Video Transcripts, Field Notes, Journal Entries)

When the fall semester came to an end, high school student participants and pre-service participants were given the option of exiting the project or remaining through the Spring Semester. All fourteen participants—seven high school students and seven pre-service students—elected to continue the project for a second semester. Within the next two years after the culmination of the project, five of the pre-service students who participated in the project completed their student teaching experience at the PDS site. Three of the high school student participants enrolled at the university that sponsored the project.

IMPLICATIONS FOR EDUCATION

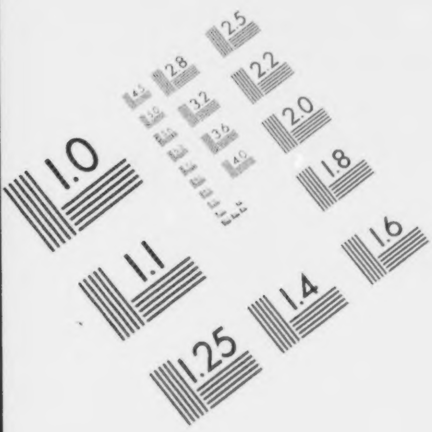
Data from the project proved to be a valuable source of information for all parties involved. Although the project may have been somewhat successful as a collaboration between a university and local high school, a high level of dedication, professionalism, and involvement was present because a previous partnership had been solidly established as a result of the PDS program. Because of the PDS commitment, components of a professional community were already in place, which further encouraged open dialog and trust. These components—as outlined by the Renaissance Group, which the university is a part of—include:

1. Shared goals focusing on learners;
2. Shared decision-making through ongoing, open dialog;
3. Commitment to provide necessary resources for projects;
4. Collaboration in research regarding models of schooling, teaching, and learning;
5. Shared commitment to professional development of all parties involved,
6. Involvement and integration of all concerned participants; and
7. Shared practices relative to technology and its applications in the educational environment. (Renaissance Group, 1998)

The willingness to involve teachers and high school students in the preparation of future teachers recognizes the credibility and expertise that practitioners contribute to the process (Conroy, Jensen, Bainbridge, & Catron, 1996). The results of this project assisted in creating a forum in which pre-service teachers, high school teachers, and public school students engaged in reflective, collaborative dialog regarding pedagogical issues. By integrating the perspectives and voices of the high school students into the dialog, the project aimed to facilitate a newly informed conversation about the complexities, contradictions, uncertainties, and possibilities of teaching and learning and to invite practicing teachers and high school students to participate in the preparation of future teachers—once again reflecting the community that is established as a result of a PDS partnership. The insights gained from this interaction and dialog enabled teacher educators currently teaching two professional education core courses—*YOED 310-Methods & Strategies for Teaching and YOED 400-Managing the Classroom for Instruction*—to better assist pre-service students in developing the professionalism and reflective thinking skills needed when they enter the field. In addition, the results from the study provided insights to practicing teachers, administrators, and school board members into the thought processes of high school students. By engaging in the study, high school students were also given the opportunity to explore what "life after high school" is like by viewing and experiencing college life through the voice and eyes of pre-service students.

Furthermore, the Professional Growth Plan component that has been added to the state Evaluation Model calls for teachers to engage in reflective practice through inquiry. The project enabled future teachers to engage in reflective practices, inquiry, and dialog that will hopefully better prepare them for the profession, while also enabling high school students to gain empowerment with regard to their own learning by providing an insider's expertise. Results from the study were presented to faculty members at the university level and school board members. Findings were utilized by PDS faculty and university faculty in the following five instructional-related areas:

1. Planning for Staff Development—additional seminars/workshops scheduled for teachers, students, and pre-service students in designing and implementing Socratic Seminars.
2. Planning for Instruction—collected suggestions made available for student teachers, methods-course students, and first year teachers.
3. Alternative Assessment—information compiled and presented to faculty—both PDS and university—regarding alternative forms of assessment matched with project-based learning, high school senior projects, and varied methods of instruction.
4. Technology Utilization—brainstorming sessions generated several additional uses for desktop video conferencing including: (a) preparation for SAT/ACT, (b) collaborative courses in methods of instruction, (c) subject-area instruction, and (d) outreach programs with informal learning environments.
5. Field Placements—information gleaned from project findings and results were utilized by PDS and university faculty members to redesign current collaborative field placements in methods and classroom management courses.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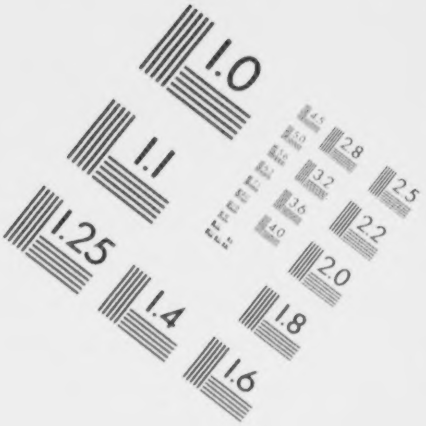
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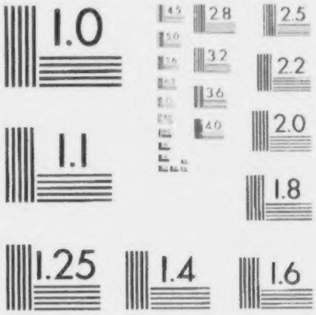
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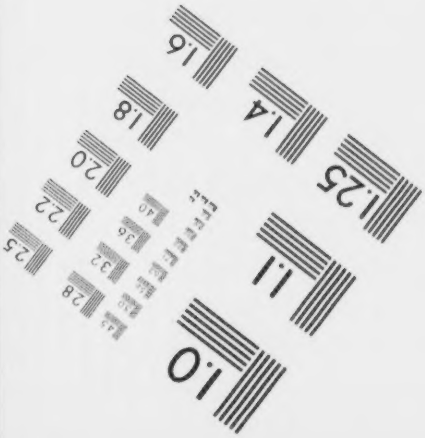
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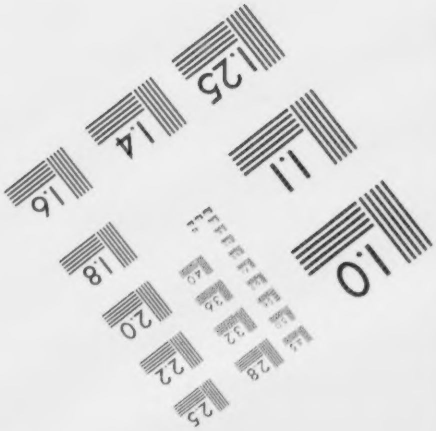
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The community of learners that was created as a direct result of this project is now in place and will continue to grow throughout the coming years in terms of future teachers, future university students, and the professional development of teachers and administrators. The project, designed as an information gathering inquiry, as outlined by Cochran-Smith and Lytle (1993), enabled the participants to learn from each other by framing problems, generating alternative solutions, trying out ideas, and assessing the consequences. Although the study was limited to one school in the mid-south area, subsequent studies conducted as a result of this one become valuable sources of information for any learning community preparing future teachers and fostering growth in practicing teachers. The collaborative avenue provided by the PDS-university partnership continues to foster the development of a lifelong learning community that enables all participants to take an active role in the preparation of future teachers through reflective, informed practice.

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CHAPTER 4

BUILDING AN INQUIRY ORIENTED PDS

The Journey Toward Making Inquiry a Central Part of Mentor Teachers' Work

Nancy Fichtman Dana and Diane Yendol Silva

ABSTRACT

The study explores one PDS partnership's effort to make inquiry a central feature of their schools and a part of mentor teachers' work during the first year of their PDS effort. The paper includes an historical documentation of how inquiry was introduced into the PDS setting, a description and analysis of the first teacher inquiries conducted in the PDS, and a report and interpretation of questionnaire data collected from mentor teachers engaging in PDS inquiry for the first time. The authors conclude by suggesting ways to facilitate inquiry within Professional Development Schools, thus, making inquiry a part of, not apart from, mentor teacher work.

INTRODUCTION

John Dewey (1896) was one of the first to suggest that schools and universities work together when he introduced the concept of the laboratory school. Dewey's laboratory school promoted the connection between theory and practice based on his belief that schools should prepare students to be self-directed through a curriculum that integrated reading, writing, and arithmetic with activities that occurred naturally and related to occupations (Kliebard, 1987). Dewey also believed that the laboratory school provided a context where university faculty and teachers could inquire about their practices and the resulting curriculum as they worked with children.

Today's Professional Development Schools embrace and revive Dewey's focus on inquiry into children's learning and teaching practices. The Professional Development Schools (PDS) movement has gained momentum in the last decade by creating partnerships between universities and public schools. These partnerships are symbiotic in nature since they assume a mutually beneficial, inter-institutional relationship, which draws on the strengths of both partners (Sirotnik & Goodlad, 1988).

Almost every commission and report on teacher education written in the last decade advocates the Professional Development Schools as a strong vehicle for educational change (Goodlad, 1990; Holmes Group, 1986, 1990; Levine, 1992). Darling-Hammond (1994) characterizes PDSs as "a special case of school restructuring: as they simultaneously restructure schools and teacher education programs, they redefine teaching and learning for all members of the profession and the school community" (p. 1). At the core of this redefinition of teaching and learning is the emphasis on inquiry by all participants. According to the Holmes Group (1990), one of the six general guiding principles for creating Professional Development Schools is that PDS sites must include a commitment to making reflection and inquiry a central part of the school. Hence, research or inquiry should be an essential and ongoing force within the PDS, as university faculty and school practitioners work together to examine their shared concerns. For example, inquiry might focus on issues of teacher education, professional growth, curriculum, and the improvement of pedagogy.

However, the role of teacher as inquirer or researcher is still in an early stage of development in PDSs across the country (Dana, 1998; Frankes, Valli, & Cooper, 1998). Although the notion of teacher research has been given noticeable attention in the last decade (Applegate, Shaklee, & Grande, 1991; Cochran-Smith & Lytle, 1999, 1993; Noffke & Zeichner, 1987), relatively few efforts have documented and explored the role of teacher research or teacher inquiry in Professional Development Schools.

A string of studies have focused on student teacher inquiry (Fueyo & Neves, 1995; McEwan, Field, Kawamoto & Amory, 1997; Rosaen & Schram, 1995; Stanulis & Jeffers, 1995; Winogard & Evans, 1995), and calls for the infusion of inquiry into in-service and pre-service teacher preparation abound. For example, Cochran-Smith (1991) suggests the need for "novices and experienced professionals alike to learn from, interpret, and ultimately alter the day-to-day life of schools" (p. 284). Hence, teacher inquiry becomes a crucial component of life in a Professional Development School that is largely missing from the PDS literature. This study explores one PDS partnership's effort to make inquiry a central feature of their schools and a part of mentor teachers' work during the first year of their PDS effort. As supervisors and university researchers in the PDS during the pilot year, we wondered: (a) How do teachers develop as inquirers? (b) What do teachers inquire about? (c) How do teachers feel about inquiry? and (d) In what ways can Professional Development Schools facilitate the development of an inquiry-oriented culture?

BACKGROUND: HOW DID INQUIRY DEVELOP IN OUR PDS?

The Mountainside School District in conjunction with Penn State's Elementary Education program has been developing a strong school-university partnership over the past six years. We currently operate four Professional Development Schools. These schools house an intensive field-based program where learning to teach is accomplished in intern teams with a mentor teacher for an entire school year.

These four operating Professional Development Schools are the result of a six-year effort to jointly plan the PDS (1994–1998), operate and study a two-school pilot program (1998–1999), and institutionalize the PDS by expanding to two additional schools and placing one full cohort of Penn State prospective teachers. While development of the teacher researcher role was crucial to our philosophy of simultaneous renewal within the PDS environment from the start of our PDS work, the introduction of inquiry into the PDS culture was a slow process that was consummated during the pilot year of our PDS work.

In December of 1994, the school district and university received funding through the initial Goals 2000 grants offered by the Pennsylvania Department of Education to create a collaborative partnership that would be actualized through the establishment of Professional Development Schools. During the first two years in our PDS planning phase (1994–1996), inquiry was not part of anyone's thinking, other than to acknowledge in passing that one goal of a PDS should be that it is a center of inquiry, and somehow, we were trying to create a PDS. At this point in our development, however, the Holmes goal for inquiry was merely words. Inquiry was not a visible part of the school or university culture or even a part of our vocabulary as we engaged in dialogue with each other around ways that we could collaborate on teacher education and schooling. We were too busy during this phase building a trusting relationship and exploring what it means to collaborate (Dana, Dana, & Hernandez, 1997). Our collaborative relationship was not strong enough to support the introduction of inquiry into the PDS setting. Our problem during this planning phase was simply, "How do we begin to introduce inquiry into the PDS site?"

We began to address this problem during the third year of our planning phase, when we gently introduced inquiry through hosting a small experimental student-teacher-as-a-researcher program at two of the evolving PDS sites and before the full year internship model was in place. Three student teachers were recruited to participate in a specially designed inquiry-oriented student teaching experience. A systematic study of this experimental student teaching revealed that the student teachers learned a great deal about their own teaching and the process of schooling through inquiry (Dana & Silva, 2001). Their work was directly connected to improving school for the children in their classrooms. In two cases, the inquiry conducted by these student teachers focused on particular children in their rooms. Insights were gained into the learning of these two students that otherwise may not have surfaced. These insights were shared with the cooperating teachers, and together the teaching team took action to make school a better place for these two children. Through inquiry, these student teachers posed questions about students or their own practice and recognized how the structure of schools shapes children's experiences.

Although at this point in the quest to make inquiry a central focus of the school, student teachers did the majority of the research. Both student and cooperating teachers learned from the research endeavor and became interested in conducting their own teacher inquiry. One cooperating teacher hosted a student teacher the following year and engaged in a joint inquiry project together, becoming one of the original mentor teachers to host a full year intern during our PDS pilot year. Our problem evolved from "How do we begin?" in our PDS planning phase to "How do we get more mentor teachers involved and comfortable with inquiry?" in our PDS pilot year.

When mentor teachers volunteered to be a part of the pilot year, they agreed to support teacher inquiry in their classrooms during the school year. Similar to the planning phase however, this agreement did not have much meaning until we entered the second half of the pilot year and an inquiry "kick-off" in-service session was held. This session was held on a District in-service day at the beginning of the spring semester and was attended by all PDS teachers and interns, supervisors, and the building administrator. On this day, PDS teachers and interns explored the role of inquiry in the PDS setting, examples of teacher research (through the presentations of three district teacher researchers), types of teacher research, and mentor-intern research relationships. This meeting marked the first planned, detailed discussion of inquiry in the PDS with mentors and interns. In order to introduce inquiry in a comfortable fashion for teachers, choices for level of participation were explicated. These modes of participation included: (a) Shared Inquiry—mentor and intern define and conduct a single teacher inquiry project together; (b) Parallel Inquiry—mentor and intern conduct two parallel individual teacher research projects, working collectively to support each other in their individual endeavors, and (c) Inquiry Support—intern takes full ownership of an inquiry project, with mentor supporting intern by helping intern formulate meaningful "wonderings" and project design and aiding in the collection and analysis of data. This in-service day ended with mentors and interns exploring their own inquiry interests and brainstorming possibilities.

Following this session, mentors and interns utilized *The Art of Classroom Inquiry: A Handbook for Teacher Researchers* (Hubbard & Power, 1993) to aid in the conceptualization and focusing of their inquiry. At one PDS site, the administrator hired a substitute for one day to release mentors and interns from their classroom to work with the PDAs in the final design of the project. The "mystery" of inquiry began to disappear as projects developed through the aid of weekly seminars that were required of each intern and optional for mentor teachers. The projects were presented at the first annual PDS Inquiry Conference one Saturday in May.

WHAT DID TEACHERS AND INTERNS INQUIRE ABOUT?

Fourteen inquiry projects were conducted. Interestingly, during this first year, thirteen of the fourteen mentors elected to engage in inquiry support rather than parallel or shared inquiry projects. One mentor engaged in parallel inquiry with her intern, and no mentor-intern pairs completed a shared inquiry. Thus, in 13 of the 14 cases, the journey toward making inquiry a part of a mentor's work in the PDS began with mentors observing and supporting their intern's inquiry rather than investigating their own wondering. Table 1 provides an overview of the focus for the fourteen inquiries.

In looking across teacher inquiries, the general focus was on one of four areas in the classrooms: (a) a particular child/children, (b) a pedagogical technique, (c) a teacher's own professional practice (exploring one's own skills, attitudes, and beliefs about teaching), or (d) curriculum. Table 2 summarizes the types and proportions of inquiry conducted during the pilot year.

During this first year, most inquiry was focused on individual children and pedagogical practice. When individual children became the focus of an inquiry, professionals in the building collaborated in studying data to develop new insights into these individuals. As a result of these inquiries, action plans were developed to enhance the educational experiences of

Table 1. Summary of Inquiries Conducted During the PDS Pilot Year

Focus of Inquiry	Student's Learning
Subject of Inquiry	IST Process
Inquiry Question	*What happened to this 1st grader as he proceeded through the IST process?*
Conclusions	• Student began to see himself as a learner. • Student became more socially involved in the class. • Student began to transfer skills practiced in isolation to his classroom work.
Focus of Inquiry	Student's Learning
Subject of Inquiry	Emotional Needs of a Child
Inquiry Question	*How does this 2nd grader's emotional needs influence her success in a regular education classroom setting?* *What strategies are effective in redirecting this child when her day becomes a challenge?* *What did I learn about my own practice?*
Conclusions	• Served as a living document to describe the experience of this "included" child in both a learning support classroom and a regular education classroom setting.
Focus of Inquiry	Student's Learning
Subject of Inquiry	Behavioral Struggles of a High Achieving Student
Inquiry Question	*What are the relationships of this high achieving student with his peers and teachers?* *How can I help this high achieving student participate appropriately in the classroom and support his unique needs?*
Conclusions	Child's behavior was consistent across contexts. • Teacher expectations/reactions differed were less consistent across contexts. • Child needed support to identify the need to adjust behavior according to different contexts.
Focus of Inquiry	Pedagogical Technique
Subject of Inquiry	Kindergarten Student Behavior at the Kindergarten Writing Table
Inquiry Question	*What is the role of peer interaction at the kindergarten writing table?*
Conclusions	Identified 4 themes: • Peers provide information about features of print, the sounds, letters, and spellings of words, and how to illustrate a picture. • Peers provide ideas for stories and illustrations. • Peers use each other as topics for stories and illustrations. • Peers informally share their writing as they work.

Table 1. Summary of Inquiries Conducted During the PDS Pilot Year

Focus of Inquiry	Student's Learning and Professional Practice
Subject of Inquiry	Teacher/Parent Interaction
Inquiry Question	*How does a child become disengaged? How can I make changes in my own teaching or in my way of interacting with students so that I could engage them during each day?* *In what ways can I connect with parents on behalf of student learning?*
Conclusions	• Dialogue journals are useful tools for parent/teacher communication. • Involving parents of children at-risk in the classroom is key to building relationships with parents and also building knowledge of school curriculum and daily life.
Focus of Inquiry	Student's Learning
Subject of Inquiry	Student Achievement
Inquiry Question	*How can I help a child to become more skilled in reading, writing, math, and staying on task?*
Conclusions	• Improved achievement in math and reading. • Heightened time on task.
Focus of Inquiry	Pedagogical Technique
Subject of Inquiry	Literature Circles
Inquiry Question	*What is the quality of discussion during student-led literature circles?*
Conclusions	• Students engage in meaningful discussion even when teacher is not a member of the group.
Focus of Inquiry	Student's Learning
Subject of Inquiry	Meeting a Child's Emotional and Academic Needs
Inquiry Question	*How can I help a child with attention difficulties be more successful in school?*
Conclusions	• Served to document the specific needs of this child. • Identified the high degree of adult/child interaction needed to help this child be successful in school.
Focus of Inquiry	Pedagogical Technique
Subject of Inquiry	Puppetry as a tool for enhancing the classroom community
Inquiry Question	*How can puppets be used as behavioral, instructional, and social tools to enhance the classroom community?*
Conclusions	• Puppets are effective tools for introducing new concepts and behaviors. • Puppets can develop altruistic behaviors in students. • Puppets can act as motivators.
Focus of Inquiry	Pedagogical Technique
Subject of Inquiry	Understanding Emergent Literacy

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Table 1. Summary of Inquiries Conducted During the PDS Pilot Year

Inquiry Question	*What literacy strategies or concepts had various first grade students acquired?* *How might this understanding shape an approach to teaching children how to read?*
Conclusions	• Successful readers use multiple reading strategies and look for meaning as they are reading.
Focus of Inquiry	Student's Learning
Subject of Inquiry	ESL Student's Oral and Written Language Development
Inquiry Question	*How does peer interaction facilitate an ESL child's writing at the kindergarten writing table?*
Conclusions	• ESL child relates writing to speaking out loud. • As ESL child's language developed; so has his drawings and interactions with peers. • The writing table facilitates an ESL child's written and oral language.
Focus of Inquiry	Professional Practice
Subject of Inquiry	Effective Teacher Questioning
Inquiry Question	*How can I better understand my own questioning behavior as a teacher?* *What type of questions do I ask?* *How does questioning vary across content and context?*
Conclusions	• Provided an alternative model to teacher planning which encourages teachers to think about planning by beginning with conceptual knowledge, developing questions that will lead to conceptual knowledge, developing the lesson, implementing the lesson, assessing student understanding, and reflecting on the lesson.
Focus of Inquiry	Student's Learning and Pedagogical Technique
Subject of Inquiry	Using Music as a Tool for Learning to Read
Inquiry Question	*In what ways can music help this child become a better reader?* *What happens when music is used as a pedagogical technique to enhance reading instruction?*
Conclusions	• Music became a motivator. • Music became a confidence builder. • Music provided a context for making meaningful connections.
Focus of Inquiry	Pedagogical Technique
Subject of Inquiry	Teacher and Student
Inquiry Question	*Music became a motivator.*
Conclusions	• Music became a confidence builder. • Music provided a context for making meaningful connections.

Table 1. Summary of Inquiries Conducted During the PDS Pilot Year

Focus of Inquiry	Pedagogical Technique
Subject of Inquiry	Teacher and Student's Roles in Classroom Meetings
Inquiry Question	*How can classroom meetings be used to facilitate student ownership and stimulate student responsibility in a second grade classroom?*
Conclusions	• Children can develop a sense of responsibility and ownership for the classroom. • Teachers need to reconceptualize their own role as they encourage children to meaningfully participate in classroom decision making.

Table 2. Types of Inquiry Conducted during the PDS Pilot Year

Type of Inquiry	*Number of Inquiries*
Inquiry into Individual Student	8/14
Inquiry into Pedagogical Technique	6/14
Inquiry into Professional Practice	2/14
Inquiry into Curriculum	0/14

these children. Tables 1 and 2 also indicate that most of the remaining inquiries during this first year focused on investigating a pedagogical technique. Hence, as a result of the commitment to inquiry, new pedagogies were being tried and critically examined, and existing pedagogy were being refined, improved, and enhanced.

Data Collection: How Did We Learn About Inquiry During Our Pilot Year?

In order to document and further understand teachers' emerging beliefs about inquiry conducted during this first year, a mentor teacher questionnaire was developed and distributed with a return stamped self-addressed envelope to each of the 14 mentor teachers during the last week of school. This document asked mentors to comment not only on their perceptions of the impact of PDSs on the children they teach but on their own participation in the PDS, the impact of the PDS on their teaching practice, inquiry, development of the PDS, and changing teaching and learning in this PDS. The work of Berry and Catoe (1994) provided the foundation for the development of the mentor teacher questionnaire. Originally, four out of 14 questionnaires were returned. In order to increase the response rate, a second questionnaire was sent to each teacher during the summer. Four additional questionnaires were returned raising the return rate to 8 out of 14 or 57%.

The mentor teacher questionnaire contained forty-one statements followed by a Likert scale of 1 through 5, with the number 1 representing "Strongly Disagree," 3 representing "Neutral," and 5 representing "Strongly Agree." Mentors were asked to circle a number, one through five, that best described their feelings in response to each statement. Space was provided for narrative comments at the end of each section of the questionnaire, as well as at the end of the entire questionnaire. Five of the eight teachers included some type of narrative comment on various sections of the questionnaire. The narrative data from each individual questionnaire were compiled together into one word processing file. Each questionnaire was assigned a number (M1-M8) in order to match narrative data to questionnaire responses during analysis. This paper only includes a presentation and analysis of the section of the survey entitled "Inquiry."

Data Analysis: What Do Mentor Teachers Say About Inquiry?

In an effort to understand developing mentor teachers beliefs about inquiry as a form of professional development, mentors' responses to individual survey items as well as their narrative comments are presented. The narrative comments made by each mentor are woven into the discussion that follows the table. To be inclusive of all mentor teacher voices, representative responses were not used, as the number of mentor teachers who contributed narrative comments was small ($n = 5$). Instead, every narrative comment made by a mentor on a questionnaire appears somewhere in this section.

Table 3. Mentor Responses to Survey Section Entitled: Inquiry

Question	*Response*	*Mean*	*Median*	*Mode*
17	The inquiry project that was conducted in my classroom this year had a positive impact on the children in my room.	3.88	4.0	4.0
18	The inquiry project that was conducted in my classroom this year had a positive impact on the curriculum.	3.25	3.0	3.0
19	The inquiry project that was conducted in my classroom this year had a positive impact on my intern's development as a teacher.	4.50	5.0	5.0
20	The inquiry project that was conducted in my classroom this year had a positive impact on my practice.	3.50	3.5	3.0
21	I believe that teacher inquiry contributed to my continuing professional growth.	4.13	4.0	5.0

Table 3. Mentor Responses to Survey Section Entitled: Inquiry

Question	*Response*	*Mean*	*Median*	*Mode*
22	I believe that inquiry is an important component of intern's growth and development as teachers.	4.25	4.5	5.0
23	I would like to find a way for teacher inquiry to become part of my practice.	3.50	3.5	4.0

Note: For a more detailed description of the PDS, please see Dana (1999).

Responses in this section of the survey to items 19 and 22 indicate that mentors feel strongly that inquiry is a critical component of and has a positive impact on interns' growth and development as teachers. Mentor 8 offers a narrative comment that gives insights into mentors' strong agreement with items 19 and 22:

> It was wonderful to witness the process of my intern understanding the value of inquiry. She literally went from the typical college student behaviors (resistance to completing assignments, the work-inquiry was just something to do for the profs to meet a requirement, etc.) to embracing the sincere value of teacher inquiry. I would have never predicted in February the impact this had on my intern by May. It was like watching a young student start as a nonreader and move to a lover of literature. (Mentor 8)

While agreeing that inquiry was beneficial for the intern, Mentor 7 commented that the timing of the project should be reexamined:

> Due to the timing of the inquiry project, I felt it was a rush job on my intern's part. She was almost full-time teaching at that time and had very little time to give much deep thought or attention to her inquiry. The day-to-day reflection of her teaching practice was the priority. As the date neared for the inquiry to be finished and due, she had to reduce her teaching time to concentrate on it more fully. I think she thought it was a waste of time initially, but then realized that she learned a lot and would use her discoveries in her teaching next year. (Mentor 7)

Additionally, responses in this section of the survey indicate that mentors feel somewhat strongly that the teacher inquiry project conducted in their classrooms contributed to their own professional growth (item 21) and had a positive impact on the children in their rooms (item 17). Based on the responses to items 17, 19, 21, and 22, mentors indicate that inquiry should continue to be a core component of the interns' teacher education curriculum that is consonant with the Holmes Group goal of making inquiry a central feature of the Professional Development School. Mentors feel interns benefit from engagement in inquiry, and as a by-product of an intern's inquiry, the classroom teacher grows professionally and children in the classroom benefit.

Mentors felt less strongly that inquiry had a positive impact on the curriculum (item 18), with a rating of 3 "Neutral," being the most frequent response to this item. This response is not surprising given that no inquiry projects conducted focused on the school district curriculum during this first year (see Table 2). Engagement in teacher inquiry that focused on district curriculum would potentially enable the district to build valuable knowledge about its own curriculum practices and implementation from within. The district and the university need to explore ways to encourage and support inquiry focused on curriculum.

Ironically, while teachers reported that inquiry conducted in their classrooms had a positive impact on their professional growth (item 21 with a response mean of 4.13 and response mode of 5.0 "Strongly Agree"), they felt less strongly that inquiry had a positive impact on their own practice (item 20 with a response mean of 3.5 and response mode of 3.0 "Neutral"). Additionally, a mean response of 3.5 for "I would like to find a way for teacher inquiry to become a part of my practice," appears to be in conflict with mentor feelings that inquiry is a critical component of beginning teacher growth and development, would contribute to their own professional growth, and has a positive impact on the children in their rooms.

These ironies may be explained by the fact that 13 out of 14 mentor teachers elected to participate in inquiry in the role of inquiry support rather than as co-inquirer into a shared inquiry project or engaging in a separate inquiry project as their interns engaged in inquiry. In the role of inquiry support, interns have full ownership of the teacher inquiry and mentors become a "guide on the side." As most interns during the pilot year "owned" the inquiry projects and most mentors guided the development of the inquiry "from the side," it makes sense that the inquiry would have a greater impact on the intern's classroom practice and less impact on the mentor's classroom practice. For mentor classroom practice to be impacted by inquiry to the same extent as the intern's, it may be that mentors must engage as a co-inquirer or parallel inquirer.

Another explanation for the disparity between mentors' "Strongly Agree" response to "I believe teacher inquiry contributed to my own professional growth" and "The inquiry project that was conducted in my classroom this year had a positive impact on my practice" is that, although mentors grew professionally, they have not yet had the time to incorporate their inquiry learnings into their classroom practice. Future research should revisit the relationship between inquiry and impact on mentors' classroom practice after more time has elapsed in the development of the PDS.

Three additional explanations are offered for the disparity that appears between the items dealing with the positive impact of inquiry and mentors' neutral response to item 23 dealing with wanting to make inquiry part of their practice. First, it may be that mentors already feel inquiry is a part of their practice. Ways should be explored to make more visible and highlight mentor teachers' engagement in inquiry across the district and the university. Second, mentors may have responded neutrally to item 23 because of the time it takes to engage in systematic study of your own practice. Two mentors addressed time in their narrative comments:

> Teacher inquiry is wonderful—but so time consuming when a teacher is in charge of a classroom. We need to find more ways to make it more viable for us, given all the demands placed upon us. (Mentor 2)
>
> Time element! (Mentor 5)

Ways should be explored to creatively use time to increase teacher opportunities for inquiry, if so desired. A third explanation to the neutral response to item 23 lies in the response range to this question. Responses to this item ranged from 2.0 "Somewhat Disagree" to 5.0 "Strongly Agree." It appears that mentors' desire to make inquiry a part of their practice varies greatly from individual to individual. Based on the response range to item 23, it is recommended that, although parallel inquiry and co-inquiry be strongly encouraged in the future, inquiry support should remain a valued option for mentor teachers at this point in the PDS development.

By the end of the year, mentors had begun to understand what inquiry was and imagine how inquiry could be a meaningful tool for learning in their own classroom. Their growth emerged as a result of witnessing their interns conduct inquiry. This movement was evidenced in narrative remarks shared as a part of evaluation at the Inquiry Conference. The questionnaire simply stated, "Please provide any feedback you would like to share about your experience at the Inquiry Conference today." These excerpts are drawn from the remarks of mentors who attended the conference and characterized where they were in the learning process. For example, one mentor highlights the type of professional dialogue and thinking that resulted from this shared professional space:

> The presentations were extremely well done and I enjoyed the stimulating and thought provoking discussions. I feel it provided a good opportunity for interns to share about their research and hard work.

This statement suggests that inquiry and the resulting discussions made possible by public sharing of the work at the conference engaged teachers in a stimulating form of professional development.

Another mentor indicated in her comments her newfound knowledge of what inquiry was and the process of engaging in inquiry:

> It was very helpful to see how the interns developed their research questions, data collection process, and conclusions. As a growing classroom teacher, their topics and findings served as reminders of my goals tied to my practices. All of the interns were very knowledgeable and professional. It was an excellent experience.

Based on this excerpt, mentors were able to develop an understanding of the process and power of inquiry by supporting their interns throughout the school year. Additionally, this mentor suggests that she sees connections between inquiry and her own role as a classroom teacher.

However, although these comments seem promising, the following excerpt from a mentor indicates that the intern is still the "owner" of the inquiry process and project:

> It was wonderful. I am so proud of all the interns and the work they put into their inquiry projects.

This mentor still sees inquiry as the intern's work and the intern's project, suggesting it is still not a part of the work that she does in the PDS.

Finally, the following excerpt presents the thinking of an administrator attending the conference and is included because it sheds light on the powerful implications inquiry has for professional development:

> I thought the presentations were outstanding—they were at the graduate level. The vocabulary the interns used to explain their projects reflected a very good understanding of the inquiry process. I learned a great deal more about inquiry by listening to the projects and the learning process articulated by the interns. The potential for the PDS is truly amazing—the impact on children's learning can be very significant as well as the learning of the teacher intern. I hope the interns carry this spirit of inquiry into their own classrooms. A great morning.

If this type of connection can be made between inquiry and children's learning, then administrators (like the one above) need to pave the road to help teachers make inquiry a part of their work in the classroom. As our PDS work has continued past the pilot year, school administrators and university faculty have worked to actualize this goal, and we have witnessed a dramatic increase in the number of mentor teachers engaging in their own inquiries (Dana, Silva, Gimbert, Nolan, Zembal-Saul, Tzur, Mule, & Sanders, 2001).

DISCUSSION AND CONCLUSIONS: WHAT HAVE WE LEARNED ABOUT MENTOR TEACHER INQUIRY IN A PROFESSIONAL DEVELOPMENT SCHOOL?

By analysis of the summations of the inquiries, consideration of the mentors' survey responses regarding inquiry, and by listening to the comments of mentors at the inquiry conference, evidence suggests that this first year has played a crucial role in planting the seeds for an inquiry-oriented PDS. Despite the fact that many PDSs across the country fall short of making inquiry a critical component of their PDS work (Frankes et al., 1998), these mentors have made great strides in constructing an understanding of teacher inquiry and the context is being cultivated for an inquiry-oriented culture to emerge.

During this first year, mentors elected to play a subordinate role to their interns in the inquiry process as a way of learning the work of inquiry. Because mentors shadowed their intern through the inquiry process, they learned about teacher inquiry through observation and dialogue. During this first leg of the mentors' journey, three developments pave the road toward making inquiry a part of mentors' work. First, mentor teachers committed to taking some role in the learning and doing of inquiry. Since few of the mentors had a prior understanding of teacher inquiry, this commitment grew out of trust in the partnership work and a willingness to support their intern. Second, mentors accompanied their interns through the inquiry process and offered support to and dialogue with their interns along the way. Third, upon the interns' completion of their inquiry projects, mentors recognized the power and contribution of inquiry in general and began developing the belief that inquiry could be useful in their work as classroom teachers. These three steps planted the seeds and provided the framework for these mentors to begin developing their own questions and consider their own journey into and through the inquiry process.

Data collected on inquiry during this first year attests to the promise of inquiry as a core component of the Professional Development School. However, for PDSs to reach their fullest potential by making inquiry a central feature of the school, the following must be considered:

1. Finding additional ways to support teacher inquiry with resources and time.
2. Finding ways to bring inquiry together with other district initiatives so that inquiry and PDS work become key places where district initiatives are born, explored, then implemented, systematically studied, and assessed.
3. Finding ways to focus inquiry on curriculum and provide support for the district's curriculum planners and university methods faculty to inquire with classroom teachers around questions of curriculum.

4. Finding opportunities for inquiry to serve as a vehicle for understanding individual children.
5. Finding a way to view inquiry as a vehicle for the continual understanding of and renewal of teachers' pedagogical techniques.
6. Identifying ways to disseminate inquiry findings.
7. Investigating the impact of inquiry on teacher professional development on an individual level.
8. Investigating the use of inquiry as a vehicle for initiating and studying district initiatives.

This study also sheds light on factors that can facilitate or inhibit mentors engaging in the inquiry process. During this pilot year, mentors became familiar with the purpose, process, discourse, and power of teacher inquiry. However, although they have witnessed the power of teacher inquiry, they have also witnessed the time needed to engage in the process. In all but one case, mentors elected to assist their intern rather than conduct their own inquiry. At this stage in the PDS development, inquiry is still not considered a part of the work a teacher does in her classroom. In order to facilitate an inquiry stance on the part of the mentors, structures need to be built into the existing professional development plans to encourage teachers to participate in inquiry as a part of their work, and the culture needs to provide mentors with space and reason to inquire. For example, administrators in our PDS buildings now allow teachers to engage in inquiry as an alternative to the traditional teacher evaluation plan. By building in various structures like this, mentors may come to view inquiry as a part of their in-service education as well as their own professional development plan.

Teacher inquiry is a key vehicle for teacher professional growth in the PDS and offers great potential as a vehicle for teacher development or "in-service education" (Dana, Gimbert, & Silva, 1999). Traditional in-service education for teachers has typically focused on the knowledge of an outside "expert" being shared with groups of teachers in a "sit and get" format. These traditional models of in-service education may be efficient methods for disseminating information but often do not result in real or actualized change in a teacher's classroom practice.

On the other hand, teacher inquiry necessitates teachers questioning their own practice, systematically studying their own practice, and ultimately changing their own practice. Teacher inquiry has the power of leading to reform-minded teaching and teacher education.

Inquiry as a new model for staff development offers powerful possibilities for reform-minded professional learning. This movement towards a new model of professional growth can be easily nurtured in the Professional Development School, with the ultimate goal of creating an inquiry stance toward teaching by all members of the PDS community. Ultimately, such a stance necessitates cutting edge teaching, teacher education, and administrative practices that have the potential to enhance school experiences of children. An inquiry stance leads to a professional positioning, owned by the inquirer, in which questioning one's own practice becomes "a part of" rather than "apart from" the teacher's work. Eventually it permeates the teaching culture, and transforms the teaching profession.

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CHAPTER 5

PROFESSIONAL DEVELOPMENT SCHOOLS AND SPECIAL EDUCATION

How Can We Help Each Other Meet Our Goals?

Margaret P. Weiss and Daniel J. Boudah

ABSTRACT

An outgrowth of school reform and school renewal, Professional Development Schools (PDSs) may be defined as a collaborative effort between universities and K–12 schools to improve student learning, prepare pre-service teachers, provide professional development of in-service teachers, and examine ways to improve practice. In this article, we note that although the PDS literature has focused largely on implementation and collaboration issues, the field of special education offers some particularly powerful instructional strategies to improve teacher performance and outcomes for all students plus validated ways to measure instructional change and student achievement. Examples of such strategies are provided, as well as a description of how PDSs can operationalize them through quality professional development with collaborative evaluation processes. Finally, we argue that PDSs need to refocus their research and development efforts on instructional change and student outcomes, combining strategies and personnel from special education and general education to meet the needs of all students.

INTRODUCTION

According to Teitel (1999), Professional Development Schools (PDSs) are "innovative types of school-college partnerships designed to bring about the simultaneous renewal of schools and teacher education programs—restructuring schools for improved student learning and revitalizing the preparation and professional development of experienced educators" (p. 6). The movement toward PDSs grew out of the ideas of school-university collaboration, school reform, and school renewal. They were thought to be an avenue to bridge the research-to-practice gap and were attractive to funders because they brought multiple players to the table simultaneously. The Holmes Group (1986) described PDSs as "places in which teachers, administrators, and university faculty work together through (a) mutual deliberation on problems of student learning, and their possible solutions; (b) shared teaching in the university and the schools; (c) collaborative research on the problems of practice; and (4) cooperative supervision of prospective teachers and administrators" (as cited in Teitel, 1999, p. 12).

PDSs have proliferated in the last ten years. Abdal-Haqq (1998) reports that more than 46% of the nation's teacher preparation institutions work with more than 600 PDSs. Though there are many different definitions of Professional Development Schools, Teitel (1998) found that most strive toward four goals: (a) improvement of student learning, (b) preparation of pre-service educators, (c) professional development of in-service educators, and (d) research and inquiry into improving practice. Yet, the literature to date focuses almost exclusively on the descriptions of implementation of PDSs, the preparation of pre-service educators, and the professional development of in-service educators, and to a lesser degree on the improvement of student learning.

Given the commonly held goals of PDSs and the large number of schools and universities involved, PDSs are uniquely positioned to address many difficult challenges that schools face. Two of these challenges are educating all students, including students with disabilities, and including all students in state achievement tests. The field of special education has a great deal to contribute to PDSs in order to assist students both with and without disabilities. In this chapter, we will: (a) briefly describe how inclusion and high stakes assessments have impacted schools, (b) give examples of what the field of special education can offer PDSs, (c) illustrate how PDSs might implement what special education offers, and (d) conclude with further suggestions for research and collaboration.

IMPACT OF INCLUSION AND STATEWIDE ASSESSMENTS

According to the *22nd Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act* (U.S. Department of Education, 2000), in the 1998–99 school year, 11% of the school-age population received special education services. That translates to more than five million students aged 6 to 17, a 34.5% increase since 1987–1988. By contrast, the enrollment increase in the entire school age population in the same time period has been only 17%. In 1988–89, 30% of the students receiving special education services were in a special education setting for approximately one-fifth or less of their school day. In the 1997–98 school year, the percentage rose to 46.4%. These numbers indicate a substantial increase in the number of students with disabilities who are receiving the vast majority of their education in general education classrooms from general education teachers. This is much a result of what is now termed inclusion.

Inclusion has come to mean many things in education. In this paper, we use the term in application with the reform effort, sparked by proponents who claimed that pullout special education services carried a stigma for students and were part of a redundant system (Stainback & Stainback, 1984; Will, 1986). This movement intended to place and educate students with all types and levels of disabilities in general education classrooms. By 1995, 891 districts in 50 states reported having inclusive education programs in their schools (National Center on Educational Restructuring and Inclusion, 1995). Though a follow-up study is not available, we speculate that the number of districts offering inclusive education programs has grown.

Inclusive programs require K–12 general education teachers to collaborate with special educators or meet the needs of students with varying disabilities on their own. Therefore, not only are teachers faced with greater cultural and linguistic diversity today (Bairu, 2000, 2001) but also with greater academic diversity. For example, Jenkins, Jewell, Leicester, Jenkins, and Troutner (1994) estimated that there were approximately five grade levels of achievement in the typical classroom (as cited in Fuchs, Fuchs, Hamlett, Phillips, & Bentz, 1994). Though inclusion is described by advocates as "the fair, ethical, and equitable thing to do" (Stainback & Stainback, 1992, p. 31), meeting such demands is a difficult task. The teachers in these classrooms, both special and general educators, need more education about disabilities and their impact on the classroom, increased training in methods for educating a vast array of learners, and more time for collaboration with colleagues who offer specialized expertise (Scruggs & Mastropieri, 1996).

The PDS literature to date includes just a few descriptions of collaborative projects or case studies between general and special educators. These include an article by Fager, Andrews, Shepherd, and Quinn (1993) in which a fourth grade teacher and a special educator worked to combine their individual classes in projects including Earth Day presentations, ocean research, and game days. The case study gives a picture of joint activities and describes some student reactions, but specifics of student and teacher change or how the collaboration continued are not included.

An article by Paul, Duchnowski, and Danforth (1993) describes a university special education department's attempts to partner with special and general educators in schools in South Florida. The article gives information about structural changes, models for collaboration, and a proposed model for evaluation but no information about instructional or student outcomes.

In Boudah and Knight (1999), a special educator, general education teachers, and university faculty worked together to implement strategy instruction in the general education classroom for students with and without disabilities. The study reported overall changes in student engagement during intervention, but these changes did not continue into the postintervention phase for either group of students. Naturalistic data analysis indicated that teachers in this study began to see the link between research and instruction and to accept more responsibility for students with disabilities in their classrooms. Though these three studies contribute to our understanding of how to meet the needs of students with disabilities in the general education classroom, researchers have yet to thoroughly examine the impact of these students on PDS classrooms and how to meet their needs.

State Testing Standards

Adding to the stress on teachers, 50 states now test their students to see how well they are learning, 27 hold schools accountable for student performance in some way, and three require students to pass state tests to be promoted to the next grade (*Education Week*, 2001). Students with disabilities must be included in these assessments, unless alternatives are available (U.S. Department of Education, 1999).

In a survey done for *Education Week* (Belden, Russonello, & Stewart, 2000), a national sample of teachers was asked about the standards. Eighty-seven percent said that raising academic standards was a move in the right direction, 69% indicated that this meant more collaboration among teachers in the schools, and 74% stated that they used test results to revise their teaching. However, 66% said that there should be alternative standards for students rather than a one-size-fits-all model. While 85% said they received professional development in content or teacher strategies for the tests, only 51% said they received training in how to use the tests as a diagnostic tool. There were no questions in the survey about training or opinions of teachers in meeting the needs of students with disabilities on these state achievement tests (Belden, Russonello, & Stewart, 2000).

Helping students with disabilities achieve state standards is important, given that there are increasing numbers of students with disabilities in general education classrooms and increasing numbers of states that use testing to evaluate schools and promote students. It also appears to be less likely that schools can exclude many students with disabilities from their aggregate scores. For example, in North Carolina in 1999–2000, 82.5% of the eighth graders tested across the state reached grade level proficiency on the reading end-of-grade tests. However, only 48.9% of students with learning disabilities and 36.4% of students with emotional/behavioral disorders achieved grade level scores (North Carolina Department of Public Instruction, 2000). In the year 2001–2002, this end-of-grade test will be a determiner in whether students are promoted to the ninth grade. Can PDSs better prepare all students to meet state standards?

According to Abdal-Haqq (1998), "not only is there little conclusive evidence that PDS programs produce sustained improvements in students' academic and social development, the literature also fails to give us more than a sketchy description of P–12 teaching and learning activities" (p. 31). In this review, Abdal-Haqq summarized six projects that have some outcome data. Of the six, five reported some sort of changes in standardized test scores or failure rates. However, "in general, the literature does not indicate that the majority of partnerships embedded in the development or implementation process a systematic, ongoing approach to documenting what was being done or evaluating the process or outcomes" (Judge, Carriedo, & Johnson, 1995, as cited in Adbal-Haqq, 1998). Moreover, the PDS literature that describes student learning has yet to address differential effects on students with disabilities.

Summary

The increase in numbers of students with disabilities in general education classrooms has required that general education teachers know more about how to instructionally meet the needs of these and other low performing students as well as how to prepare all students to meet state standards for promotion or graduation. To date, the PDS literature has not provided substantive insight regarding these topics. Fortunately, the field of special education has focused on these issues and can offer PDSs research-validated strategies to improve teacher and student outcomes, to measure instructional change and student achievement, and to change the format of professional development.

WHAT CAN SPECIAL EDUCATION OFFER PROFESSIONAL DEVELOPMENT SCHOOLS?

In this section, we will describe what special education can offer PDSs, particularly with regard to some powerful examples of instructional strategies that improve teacher and student outcomes for all students along with some validated ways to measure instructional change and student achievement.

Strategies to Improve Teacher and Student Outcomes

Special education researchers have investigated many instructional strategies that have improved teacher and student outcomes in both the general education and special education classroom. Many of these strategies could be used in PDS classrooms to help all students achieve and, though many begin as teacher-centered strategies, the responsibilities shift to or are shared by students. Just a few examples include the Content Enhancement Routines, developed by associates of the University of Kansas; the Peer Assisted Learning Strategies (PALS), developed by the Fuchs and associates at Vanderbilt; and Positive Behavioral Support Programs, developed by George Sugai and associates at the Office of Special Education Programs Center on Positive Behavioral Interventions and Support.

Content Enhancement Routines

In response to the complexity of classroom demands and varying student needs, Content Enhancement Routines engage teachers in making planned decisions about what critical content to emphasize in teaching, transforming the content into learner-friendly formats, and then presenting science, social studies, or other content to academically diverse groups of students in memorable ways. A number of Content Enhancement instructional strategies have been developed and validated in cooperation with teachers (e.g., Bulgren, Schumaker, & Deshler, 1988, 1994) and further translated into teacher products that are commercially available with training. For instance, The Unit Organizer Routine (Boudah et al., 2000; Lenz et al., 1994) is used to help teachers plan for, introduce, and build a unit. Thus, all students can (a) understand how the unit is part of bigger course ideas or a sequence of units, (b) understand the "gist" or central idea regarding the unit through a meaningful paraphrase of the unit title, (c) see a structure or organization of the critical unit information, (d) define the relationships associated with critical information, (e) generate and answer questions regarding key unit information, (f) monitor progress and accomplishments in learning, and (g) keep the "big ideas" and structure of the unit in mind as the unit content is learned.

Research has indicated that teacher planning is enhanced using Content Enhancement Routines and the performance of low-achieving students, students with learning disabilities, and average-achieving students is improved substantially in regard to understanding and retaining information (Lenz et al., 1994). In fact, among these groups, the students of teachers who used the routine regularly and consistently scored an average of 15 percentage points higher on unit tests than students of teachers who used it only irregularly. Teachers also reported that the Unit Organizer Routine helped those students with language problems and whose first language was not English acquire secondary content.

PALS: THE PEER ASSISTED LEARNING STRATEGIES

The PALS program is a student mediated learning program designed to develop student skills, particularly in reading but also in mathematics. PALS "incorporates structured activities that require peers to engage in frequent interaction, provide each other with immediate corrective feedback, and take turns as tutor and tutee" (Fuchs, Fuchs, & Burish, 2000, p. 85). For reading, after teacher-directed instruction on what to do and how to provide corrective feedback, teachers place students in pairs that include a higher-level reader and a lower level reader. The dyads work together on three structured activities: Partner Reading, Paragraph Shrinking, and Prediction Relay. In Partner Reading, the higher performing reader reads text for five minutes after which the lower performing student rereads the same material. The lower performing student then retells what has occurred with feedback from the higher performing student. In Paragraph Shrinking, students read aloud paragraph-by-paragraph, and each stops to identify the main idea after reading. They also receive feedback from the partner. Finally, in Prediction Relay, students make a prediction about what will be read in the next half page. The student reads a half page and summarizes the main idea. Both students then decide whether the prediction was correct or whether it needed revision. As the dyads work, they earn points for words read correctly, main ideas identified, and predictions. The dyads are included in larger class teams, encouraging them to work hard and get as many points as possible.

In reading, PALS has been investigated at the elementary level and found to improve both reading fluency and reading comprehension for students who are average, low achieving, and have learning disabilities (e.g., Fuchs, Fuchs, Mathes, and Simmons, 1997). PALS has also been evaluated at the high school level and found to improve reading comprehension skills (Fuchs, Fuchs, & Kazdan, 1999). The results for reading growth "compare favorably with more complicated and labor-intensive versions of collaborative learning" (Fuchs, Fuchs, & Burish, 2000, p. 88).

Positive Behavioral Support

With the growing diversity and number of students, schools have struggled to maintain calm, safe environments for all. In response, the goals of school-wide positive behavioral support (PBS) programs are "to define, teach, and support appropriate behaviors in a way that establishes a culture of competence within schools. When a competent culture is established, the students are more likely to support appropriate behavior and discourage inappropriate behavior by the peers" (Office of Special Education Programs Center on Positive Behavioral Interventions and Support, 2000, p. 1).

Successful PBS systems are developed in steps by committed teams of faculty and administrators in an attempt to consolidate many of the overlapping, individual efforts to control school behavior. Initially, teams define a small number of behavioral expectations clearly and positively. Next, teachers teach these behavioral expectations to all students, using direct instruction, modeling, and practice. Educators must then acknowledge when appropriate behaviors are used by students in ways that are valued by students. Concurrently, behavioral errors are corrected proactively, with clear procedures "for providing information to [students] that their behavior was unacceptable, and preventing that unacceptable behavior from resulting in inadvertent rewards" (Office of Special Programs Center on Positive Behavioral Interventions and Support, 2000, p. 2). In addition, program evaluations and adaptations are made by the team, using behavior incident reports, attendance counts, tardies, and suspension and expulsion rates, for example.

Schools that successfully implement systemwide PBS programs show the following results: (a) increases in attendance, (b) student reports of a more positive and calm environment, (c) teacher reports of a more positive and calm environment, (d) reduction in the proportion of students who engage in behavioral disruptions, and (e) reduction in the number of behavioral disruptions (Office of Special Programs Center on Positive Behavioral Interventions and Support, 2000). These are important outcomes for all schools, including PDSs.

MEASURING INSTRUCTIONAL CHANGE

Special educators have long been concerned with instructional strategies as well as classroom variables and their effects on student performance, including when students with disabilities are educated in general education classrooms. Ecobehavioral assessment approaches provide a means to assess student performance in relation to variables in the classroom setting such as the subject of instruction, instructional materials, and the teacher's actions. This assessment is often done in order to compare differences in performance before and after interventions have taken place (Greenwood et al., 1997).

The development and validation of ecobehavioral assessment has led to the design, validation, and use of observation systems that have successfully evaluated and improved instruction in general education and well as special education. Most notably, Greenwood and colleagues at the University of Kansas Juniper Gardens Children's Project created Ecobehavioral Assessments Systems Software (EBASS) (Greenwood et al., 1994) which are computerized instruments that can be used by observers on laptop computers. Such instruments have been critical to establishing empirically based links between low student achievement and instruction as well as to identifying that peer tutoring is effective and the situations in which it is effective (e.g., Greenwood, 1991). Clearly, such instruments could be valuable assets to PDSs in their efforts to describe instructional performance and change.

MEASURING STUDENT ACHIEVEMENT

A well-developed line of research in special education has measured and improved student achievement using curriculum-based measurement (CBM) as an alternative form of evaluation that could prove very useful for PDSs in their quest for formative achievement data. Shinn and Bamonto (1998), describe CBM as "a set of standard simple, short-duration fluency measures of reading, spelling, written expression, and mathematics computation ... developed to serve as general outcome indicators measuring 'vital signs' of student achievement in important areas of basic skills or literacy" (p. 1). CBM probes are constructed using state or school district curriculum and administered in minutes by teachers on a frequent basis so that they can evaluate how students are performing in the curriculum that they are teaching and whether instructional change is necessary to improve achievement. For example, a standard reading fluency CBM probe includes a passage of 250 words taken from a grade level text. Students are asked to read as many words as possible in one minute while the teacher notes words read correctly as well as miscues. For reading comprehension, a teacher chooses a passage of 250 words taken from a grade level text and deletes every seventh word. Given three alternatives to choose from, students are given five minutes to read and select words to fill in the blanks.

Research has shown CBM to be both valid and reliable (Marston, 1989). Most importantly, CBM has been shown to increase student achievement (Fuchs et al., 1994; Hasbrouck, Waldbeck, Ihnot, & Parker, 1999; Stecker & Fuchs, 2000). Shinn, Deno, and others (Shinn, Collins, & Gallagher, 1998) have also situated CBM within a problem-solving model that provides entire school and school district data that has led to systemic reforms in identifying students who are at-risk or who may have disabilities in relation to their peers and the relevant curriculum. With the use of CBM data, PDSs could track both school and student data in a formative way that is relevant to the curriculum throughout the process of PDS development. CBM could also be used to assess the impact of instructional changes due to PDS reforms.

HOW CAN SPECIAL EDUCATION CONTRIBUTIONS BE IMPLEMENTED?

Given some examples of how research and development efforts in the field of special education can inform and address the mission of PDSs, how can such efforts be maximized? One way is through effective means of professional development, and a second is through efficacious evaluation of PDS initiatives. Both assertions provide for shared expertise among teachers and university educators—a predominant value in all PDS work.

PROFESSIONAL DEVELOPMENT DELIVERY

No matter how high the quality of research-validated interventions or how well designed the training materials may be, clearly, if there is a poor match between needs of teachers and in-service topics or instructional formats (e.g., Boudah & Mitchell, 1998; Guskey, 1986; Joyce & Showers, 1995) and lack of time for reflection on and practice of new methods (Fullan, 1991; Merriam, 1986), the implementation and sustainability of credible interventions in classrooms will be minimized.

As a result, PDS efforts aimed at teacher professional development should employ a means of delivery such as that found in the Authentic Professional Development (APD) Model. The APD model was initially developed to provide an effective professional development approach for teachers, particularly for implementing Content Enhancement Routines.

According to the APD Model, authentic and effective professional development is characterized by: (a) quality instruction for adult learners (e.g., Loucks-Horsley et al., 1987; National Partnership for Excellence and Accountability in Teaching, 2000), (b) teacher empowerment (e.g., Hunsaker & Johnston, 1992; Snyder, Bolin, & Zumwalt, 1992), (c) well-matched needs and activities (e.g., Bradley & West, 1994; Fullan, 1991), and (d) sustainable improvements in instruction (e.g., Fullan & Hargreaves, 1996; Joyce & Showers, 1995).

Based on these principles, the APD model was designed around four specific staff development activities: (a) problem-solving: defining instructional problems, targeting strategy solutions, and addressing training logistics; (b) teacher instruction and classroom demonstration; (c) teacher practice with observation and feedback; and (d) teacher follow-up and implementation enhancement.

Problem-solving: Defining Instructional Problems, Targeting Strategy Solutions, and Addressing Training Logistics

First, teachers and their building administrators voluntarily meet to collaboratively define instructional problem areas, targeting one intervention to learn and implement (e.g., Unit Organizer Routine, PALS, PBS). Teachers and administrators then address on-site scheduling and other logistics for the planned training and classroom demonstrations.

Teacher Instruction and Classroom Demonstration

During the following two weeks, teachers participate in approximately two hours of on-site training and observe the intervention trainer modeling/demonstrating implementation of the intervention in various classrooms with students. After observing the demonstration, teachers debrief with the trainer (university collaborating educator) on what they learned and observed.

Teacher Practice with Observation and Feedback

Teachers plan their own implementation of the intervention within the next two weeks. The university collaborator returns to observe teachers implementing their use of the intervention. In after-school meetings, the university educator provides group and individual feedback to teachers regarding their implementation.

Teacher Follow-Up and Implementation Enhancement

After several weeks, teachers meet again with the university educator individually and in small groups to share successes, troubleshoot problems, and create necessary modifications to the intervention. Additional follow up meetings occur over time.

In field testing this model, significantly higher teacher implementation rates were observed and reported in the classrooms of teachers that participated in the APD Model than in classrooms of teachers that participated in traditional staff development. Aspects of overall student performance reportedly improved in APD Model teachers' classrooms, including aspects of the performance of low-achieving students and those with learning disabilities. The majority of the APD teachers reportedly made modifications for students with learning disabilities (Boudah & Mitchell, 1998; Boudah, Blair, & Mitchell, in press).

COLLABORATIVE EVALUATION

How could such results or the impact of any PDS intervention be measured in ways consistent with the goals of PDSs? Participatory Research and Development is one vehicle for doing so.

Participatory Research and Development (PR&D) is based on the collaborative efforts of classroom teachers and professional/university researchers conducting inquiry *in* practice. It is based on mutual trust, cooperation, and benefit to all who are involved. It may be characterized by a process that is educationally realistic, collegial, extensive, intensive, and comprehensive (Boudah & Knight, 1999). The PR&D characteristics are embedded in three phases of implementation: (a) development and implementation of interventions to improve student learning; (b) research design, data collection, analysis, and interpretation of results associated with the intervention; and (c) dissemination of findings.

Development and Implementation of Interventions

During the first phase, teachers meet and discuss an array of instructional challenges and select one or two areas for focus (e.g., learning strategies or student motivation/initiative). Next, teachers collect data to confirm or disconfirm that these challenges exist. For example, teachers might select a sample of students with and without disabilities and ask each student to read a paragraph and "think aloud" through the process of determining the main idea in order to assess their knowledge and use of certain learning strategies. University collaborators then provide teachers with a structure for analyzing such formative data. Teachers might work in grade level or content area subgroups (English, social studies, math/science) to analyze and compare findings.

Finally, teachers work in teams to design instructional units and materials for classroom implementation, using adopted or adapted strategies learned through APD or strategies that they develop themselves.

Research Design, Data Collection, Analysis, and Interpretation of Results

During the second phase of PR&D activities, teachers implement, collect data on, and analyze the results of interventions. Initially, teachers participate in study groups to consider the question, "How will we know if our intervention has been successful?" During these discussions with colleagues and university educators, teachers learn about quantitative and qualitative research methods and design or adapt data collection instruments to measure the effects of their interventions, perhaps by using CBM procedures. University collaborators serve as resources during this period, providing information, guidance, and feedback. Second, teachers implement instructional interventions over a sufficient period of time for teachers and students to gain mastery of the intervention, and receive feedback from teacher and university colleagues. Before, during, and after the intervention implementation, teachers and university collaborators collect observational data on teacher instruction and student performance to measure the impact of interventions, perhaps by using ecobehavioral assessment systems or EBASS.

University and school-based educators have used the PR&D model in PDSs with success. For example, at the high school level, significant teacher, student, and system-level outcomes have been reported by Boudah and Knight (1999) and Boudah et al. (2000). In these studies, student performance was enhanced, teacher instruction was improved, and school system and cultural changes were clearly noted.

Reconciling Special Education Contributions and Constructivism

One of the difficulties in bringing special education and general education together in PDSs could be the apparent dichotomy in conceptual frameworks from which each discipline comes. Constructivist principles are often advocated by general education teachers, including the principles of:

1. The starting point for *learning* is the knowledge, attitudes, and interests students bring to the learning situation;
2. Learning results from the interaction between these characteristics and experience in such a way that learners construct their own understanding from the inside, as it were;
3. *Instruction* must take as its starting point the knowledge, attitudes, and interests students bring to the learning situation;
4. Instruction must be designed so as to provide experiences that effectively interact with the characteristics of students so that they may construct their own understanding (Howe & Berv, 2000, p. 31).

When taken to an extreme such that teaching becomes a dirty word and "something that we should strive not to do to children" (Harris & Graham, 1996, p. 136), students will suffer, particularly those lacking the necessary prerequisite skills.

Having said that, special educators have often been accused of advocating reductionist, decontextualized, direct instruction to teach students with special needs basic skills. To the contrary, many authors in special education encourage coherent, integrated instruction that embraces many constructivist principles and incorporates explicit and implicit instruction. For example, Mercer, Jordan, and Miller (1996) use the work of Moshman (1982) to describe three types of constructivism along a continuum: endogenous, exogenous, and dialectical.

According to Moshman, endogenous constructivism:

> assumes that knowledge is developed entirely within the learner and that the teacher should facilitate learning without explicit instruction. In contrast, the exogenous constructivist believes that learning requires much teacher support and that the teacher must transmit knowledge to the student to facilitate learning. Between these two extremes is the dialectical constructivist, who believes that knowledge is a collaborative enterprise and that instruction should include both explicit and implicit methods. (p. 147)

Within this view of constructivism, teachers can wed the implicit techniques of inquiry-based learning with the explicit techniques of special education described in the previous section. Moreover, with a combination of the effective professional development approach such as APD and a collaborative, inquiry-based evaluation model such as PR&D, PDSs will have a powerful, validated way to implement and assess successful instructional strategies and an important means by which to address the critical challenge of meeting the needs of all students in classrooms.

CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

We have presented four main points for educators involved with PDSs to consider: (a) the number of students with disabilities receiving the majority of their education in general education classrooms has markedly increased; (b) a larger number of states are using tests to evaluate the academic performance of all students, as well as teachers and schools, and students with disabilities must often be included in these tests; (c) special education offers many valuable research-validated interventions for teachers and effective means of evaluating the interventions; and (d) effective means of professional development and collaborative evaluation can be deployed to make change happen in PDSs. All of these points are responsive to the need for an increased focus by PDSs on evaluation of instructional change and student outcomes.

In reviewing the literature on PDSs, in light of the lofty expectations set by the Holmes group and others, it appears that: (a) most of the literature is devoted to descriptions of PDS efforts and perceived changes in novice teachers and experienced teachers, (b) there is little literature on cultural and systemic changes generated by PDS work, and (c) there is even less literature about student academic benefits. Perhaps, we could argue that the benefits for universities have, thus, outweighed the benefits for school-based educators, considering that the PDS site provides a place to provide student teacher placements and some service opportunities. If PDSs are meant to be a truly collaborative endeavor, the benefits have yet to be realized by all parties.

All of this has left us with the following final thoughts. The majority of schools seem to be struggling to improve while, at the same time, attempting to meet the needs of an increasingly diverse student body. Should we, as university educators, then not be focusing more of our attention on working together with schools through PDSs to enhance student outcomes (on state tests, or otherwise)? To do so could provide both service as well as potentially vital research opportunities addressing both of those expectations for university faculty. Such efforts would, in a larger sense, balance the costs and benefits to schools as well, and perhaps catapult PDS efforts to levels closer to those envisioned by so many educators. This type of collaboration with shared benefits could also provide a mechanism for attracting resources. Resources then, in turn, can make research and collaboration more possible.

The opportunities for research in PDSs are great because many important questions remain to be answered. One is whether changes in instruction do, indeed, take place in PDS classrooms immediately and remain over time. The investigation of this question could follow the steps of the APD and collaborative evaluation systems described and include the use of learning strategies, PALS, positive behavioral supports, or other research-validated interventions for students with and without disabilities. Researchers could use systems, such as EBASS and others, to systematically observe classroom and instructional change. This evaluation would include changes in teacher behavior, both instructionally and in planning, and changes in how teachers present material, what material they present, how they pace the material, and how they plan for their classrooms. It would also include changes in instructional materials used and presented such as use of varieties of textbooks, changes from lecture to discovery or organizers used during teacher-directed instruction. Researchers also would need to observe changes in classroom layouts and routines, grouping strategies, and classroom management techniques. Throughout each investigation, explicit description of the change that has taken place is necessary. These and other observations should be made in pre-PDS and post-PDS observations. In addition, longitudinal data must be kept in order to address the impact of PDS work as the collaboration develops over time.

Secondly, researchers must address whether students in the classrooms where interventions are implemented show increases in their achievement levels in relation to peers not in those classrooms, in relation to peers in classrooms with other interventions, and in relation to peers in non-PDSs. State assessments can provide data in this regard but measures such as CBM will provide teachers with more information that is instructionally relevant. CBM would also provide data to teachers on a frequent basis so that adaptations could be made for students during interventions, not after they have already failed. CBM would allow teachers and researchers to compare the performance of students with disabilities to the performance of students without disabilities on the curriculum being taught in the classroom. To broaden the literature base, it would be very important to report as much about control and experimental groups in the classrooms examined in addition to the process for instructional change. Again, this research effort should be both short and long term.

Finally, and perhaps this goes without saying, researchers and teachers must be able to specifically describe the characteristics of the Professional Development School under investigation. In order to try to assess whether changes are attributable to PDSs, we must know what constitutes the PDS in each case. How were instructional changes implemented? What process did the school use to determine where instructional change was needed? How is the PDS structured? Who participated and what were their roles? What makes a given PDS different from any other professional development attempts? We must be able to argue that the collaboration in the PDS structure makes it a worthwhile and efficient mechanism of change, not just another reform idea that requires large amounts of school and university resources with little return.

PDS programs will improve by bringing all parties to the table, both special educators and general educators, university and school staff, to address the challenges of improving the outcomes for all students, including students with disabilities. A collaborative effort such as this has the potential to create quality instruction and outcomes for *all* learners through relevant, productive, professional and pre-service development as well as meaningful, change-oriented partnerships in research. That would be an exciting and worthy fulfillment of the promise of Professional Development Schools.

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CHAPTER 6

PARADIGM PIONEERS

A Professional Development School Collaborative for Special Education Teacher Education Candidates

Barbara Calcagni Glaeser, Belinda Dunnick Karge, Judy Smith, and Christine Weatherill

INTRODUCTION

It is an ongoing challenge to reform teacher education. Several reports over the past decade have called for an improved pre-service preparation of teachers (Carnegie Forum, 1986; Goodlad, 1990; Holmes Group, 1990). These reports place emphasis on collaboration and address some of the common concerns for education today. However, special education is not included in the reform efforts. Of these, only the Holmes Group refers vaguely to special education by describing "challenging children," yet we are all aware that children with special needs exist at every school site across America. The Holmes group originally introduced the term Professional Development School (PDS), the Carnegie Forum report refers to "clinical school," and the Rand Report references "an induction school." In all reports, reference is made to professional development of all participants (e.g., classroom teachers and the teachers-in-training). Thus, a PDS relationship should focus on whole-school improvement while "growing" teacher education candidates at the same time. According to National Council for Accreditation of Teacher Education (NCATE) guidelines, PDS practices and programs should be consistent with developing high standards for new teachers, as well as highly accomplished practice for teachers in the field, and should model good practice associated with achieving high standards for student learning. The goal of the PDS is to draw closer connections between schools and teacher training institutions so that responsibility for teacher candidate education is shared. In this way, teacher education candidates participate in direct, organized experiences with children rather than non-interactive observations. A PDS adds a hand-on dimension to university training and enhances teacher quality. Grisham, Bergeron, Brink, Farnan, Lenski, and Meyerson (1999) reported the PDS concept is "intended to connect theory and practice in education so they reciprocally inform each other" (p. 182). Teacher education candidates bring recent research-based ideas and practices from their university courses to the PDS. Veteran teachers at the school sites provide the opportunities for teacher education candidates to apply these practices and learn the profession through first hand experience.

PROFESSIONAL DEVELOPMENT SCHOOLS AT CALIFORNIA STATE UNIVERSITY, FULLERTON

California State University is the nation's largest senior system of higher education, serving 320,000 students on 22 campuses. The California State University system experienced its largest gain in five years, when 1995 fall opening recruitment reached 324,882, approximately 5,500 higher than the previous year's student count. California State University, Fullerton (CSU Fullerton) is the system's sixth largest campus, serving more than 22,000 students. The average age of the teacher education candidate is 26. The population includes a large group of students who commute, older adults, first-generation college students, and traditional college students.

In the 1990s, the credential standards for Special Education in the state of California went through a significant change process. Prior to 1997, teachers wanting a special education credential had to first attain a multiple subject (elementary) or single subject (secondary) teaching credential before they could enter the special education training program. However, in 1997, the new standards required each university to virtually rewrite their entire special education program to allow candidates to enter the program without general education credentials. As CSU Fullerton Special Education faculty worked to rewrite the program standards document, they collaborated with colleagues in the Elementary, Bilingual and Reading and the Secondary Education Departments. During these collaborations, it was suggested that the Special Education Department establish a professional development site where exemplary practices in special education could be viewed. A colleague in the Elementary Education Department suggested that the department chair attend several workshops and national conferences on PDSs. At these conferences, faculty would ask presenters about special education. On many occasions presenters would state that special education was "not included" in their model. As faculty working to train teachers in the field of special education, it is frustrating to hear that PDS models exist that do not include or provide attention to students with special needs at the sites nor do they allow teachers-in-training the opportunities to learn about students with special needs! Research clearly advocates for PDSs to be inclusive at every level of professional development.

REQUIREMENTS FOR THE EDUCATION OF PERSONS WITH DISABILITIES

One of the key reasons the Department of Special Education faculty at CSU Fullerton wanted to develop a PDS for special education teacher education candidates was to provide our candidates experience with teaching the general education core curriculum in inclusive general education classrooms. This aligns with the 1997 reauthorization of the Individuals with Disabilities Act (IDEA), a Federal special education law which states that "special education, related services, and other aides and services should be provided in the general education classroom whenever appropriate (20 USC § 1400 (c)(5)(D)), and "access to the general education curriculum to the maximum extent possible" (20 USC § 1400 (c)(5)(A)). Based on the requirements of IDEA, California Regulations stipulate that students with disabilities receive a free appropriate public education (FAPE) in the least restrictive environment (LRE), based on the Individualized Education Plan (IEP), including "...a statement of measurable annual goals, including benchmarks or short term objectives, related to meeting the child's disability to enable the child to be involved in and progress in the general curriculum; and meeting each of the child's other education needs that result from the child's disability..." (C.F.R. § 300.347 (a)(2)(i)). This means that the intent of IDEA is a desire to place emphasis on an education that meets the needs of individual children with disabilities (FAPE), as often as possible with their peers (LRE) and with the general education curriculum. In addition to access to general education, IDEA also emphasizes a results-based education for children with disabilities. Accountability should lie not only with the special education teacher but with general education as well. Specifically, the intent of IDEA is to "improve a person's educational results so that they can participate fully in American life" (20 U.S.C. 1400 (c)(1)).

Formation and Guiding Philosophies

The formation of PDSs seemed a natural paradigm shift for the Department of Special Education at CSU Fullerton. Professional Development School relationships allow our Special Education teacher education candidates to be supported by both the public schools and the university as paradigm pioneers in a program that blurs the lines between general and special education, provides opportunities for standards-based education, improves outcomes for all students, and helps schools to advance on the continuum from compliance to commitment to the IDEA ideal of an "improved participation in American life" for persons with disabilities.

The philosophy and requirements of IDEA appealed for increased collaboration among educators; our department philosophy speaks to strong collaborations with our colleagues in general education. We also believe that an excellent special educator must have extensive experience in general education with exemplary teaching at all instructional grade levels. In addition, because the newly adopted California special education credentials cover large age ranges of children, we want our candidates to have experience in a variety of classrooms (instead of the traditional one or two student teaching experiences). It was decided that PDSs that complied with IDEA and provided examples of inclusion, collaboration, co-teaching and strong behavioral support systems in a variety of settings would be most beneficial for our department.

"Collaboration is a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal" (Cook & Friend, 1991, p. 25). In the case of the CSU Fullerton PDSs, the co-equal parties became the university and the school site. It was their common goal to improve student learning at the schools by exploring ways to differentiate instruction for ALL students, with special focus on children who are at-risk for failure or have been identified as students with special needs. In *The Differentiated Classroom: Responding to the Needs of All Learners*, Carol Ann Tomlinson (1999) states that there is no single formula for creating a differentiated classroom. However, it is clear that teachers must attend to student differences. The teacher is continually modifying content, process, and products according to the students' readiness, interests and learning profiles. This philosophy aligns beautifully with the LRE provision of IDEA by encouraging participating schools to adopt the philosophy that students with special needs should be educated in the least restrictive environment and that instruction in general education should align with the special education concept of "individualization." Special Education is a service, not a place (IDEA, 1997). Each of the PDS sites that will be described in this article provide special education services to a variety of children with a large range of individual needs in the general education classroom. Sometimes the services are individualized, at times they are in small groups, and in many situations they are provided in the context of the whole class environment.

Idol's Collaborative-Consultation process is an interactive process that enables teams of people with diverse expertise to generate creative solutions to mutually defined problems (Karge, McClure, & Patton, 1995). This process (collaborating together) creates synergy with different outcomes that may be stronger than the original solutions that any one team member might have produced independently (Walther-Thomas, Korinek, McLaughlin, & Williams, 2000). As Morgan-Rogers and Fujioka (2001) indicate, a collaborative co-teaching team is one where general education and special education teachers work with one another (instead of along side one another) to enhance instruction. This is the ultimate goal of all CSU Fullerton Department of Special Education PDSs. We aim to work with our general education colleagues in the public schools to support differentiated learning for ALL children and for university teacher education candidates as well. Fountain and Evans (1994) highlight several assumptions they believe are critical for collaborative change on the professional development continuum. Our PDS formation and development is based on the same assumptions:

> (a) Successful change initiatives depend on collaboration and shared dialogue; (b) Successful restructuring efforts of public schools and colleges of education must be situations and problem-based; (c) successful collaborative activities depend on the extent to which they succeeded in transforming independent but interrelated goals into mutually beneficial actions; and (d) the distinctive and dissimilar cultures of public schools and colleges of education require changes in the norms of interaction between these cultures, conscious efforts to create shared culture including collaborative decision making. (p. 218)

Each of these assumptions will be revisited later in this chapter and correlated to the CSU Fullerton PDS collaborative/co-teaching design.

Currently there are three public Professional Development Schools associated with our Special Education Department and two sites in development. There are common threads that tie the schools together and provide the baseline for the CSU Fullerton Department of Special Education PDS model. These include: (a) leadership, (b) fieldwork and student teaching, (c) university courses taught at the school site, (d) research on elementary student outcomes, (e) demonstration lessons, (f) intern observations, (g) faculty expertise utilized at the PDS, and (h) support with extracurricular activities.

LEADERSHIP

One of the most important roles of a PDS is to foster leadership. Teitel (1997) suggested that a PDS should be designed to "transform the roles, the relationships, and the responsibilities of teachers and administrators at the schools and at the universities" (p. 9). At each PDS, a full-time special education faculty member serves as the direct liaison between the university and the school site (Button, Ponticell, & Johnson, 1996). The faculty liaison is responsible for coordination of all efforts on the site, including student teaching placement, assignment of university supervisors, research projects, and university instruction. The faculty member works very closely with the principal and both the general and special education staff on site to collaborate and to assure a smooth implementation of the PDS model. Trust between school and university personnel is essential (Campbell, Strawderman, & Raves, 1996). Without trust, day-to-day issues are more challenging to solve (Metcalf-Turner & Fischetti, 1996). Thus, the role of faculty liaison to a PDS is not taken lightly, requiring a great deal of time and personal commitment to school improvement. Without this commitment, the "marriage" between school and university will dissolve (Teitel, 1998). There is also the danger that the time required to build a strong school-university relationship might pull from the limited time faculty have available to complete the requirements toward tenure (Bullough, Hobbs, Kauchak, Crow, & Stokes, 1997). To address this dilemma, the first PDS liaison in the Department of Special Education at CSU Fullerton was a tenured faculty who was careful to model for untenured faculty liaisons ways to incorporate their PDS activities into their university requirements for teaching, scholarship, and service.

Even the most committed university liaison would be ineffective without principal support. The PDS principals at all three sites continue to be very supportive; two have professional experience in special education. They value the input of the CSU Fullerton faculty into school improvement decisions, provide space for classes, and are committed to training exceptional teacher education candidates. They are visible at the school and they spend time with the teacher candidates. Acknowledging what Berliner (1998) calls the "beginner challenge," they are aware that typically first year teachers are often given equal or more difficult assignments then 10-year veteran teachers. The principals want the teachers-in-training to know what to do in these situations. They have opened their school sites for every level of observation and hands-on learning and observe teacher candidates while offering feedback—just as they do for veteran teachers. In two of the PDSs, the principal and faculty liaison co-authored and received grants to support the PDS that were subsequently funded.

FIELDWORK AND STUDENT TEACHING

One of the key components of a successful PDS as proposed by Yopp, Guillaume, and Savage (1993) is a "critical mass of student teachers [at a site] who share a common base of experience and knowledge" (p. 31). These authors recommend at least six-to-eight students at each PDS. All Special Education PDSs at CSU Fullerton have from five-to-ten teacher candidates per semester, the majority of whom are in general education classrooms. These candidates must participate in 30 hours of special education fieldwork and 90 hours of general education fieldwork prior to student teaching. Candidates are placed at a PDS at the beginning of their first 15-week semester. They participate in 90 hours of general education fieldwork and eight weeks of student teaching in general education. During their second 15-week semester, teacher candidates work in a special education environment.

A university supervisor is assigned to each PDS and student teaching seminars are held on the elementary school campus. Often the faculty liaison will either serve as the supervisor or attend the seminars to assist the assigned supervisor and to help oversee the collaboration between the university and the school site. As candidates first view demonstration lessons at the PDS then they are required to write in an interactive journal that is read and responded to by the supervisor. These journals provide a rich source of data on the effectiveness of the PDS model for teacher candidate professional growth. Each of these PDSs serves students with special needs in general education classrooms. This allows the candidates to learn techniques for servicing these children in inclusive environments.

UNIVERSITY COURSES TAUGHT AT THE SCHOOL SITE

Another key component of a PDS is the opportunity for teacher candidates to apply university learning in natural settings (Campbell et al., 1996; Yopp et al., 1993). Each semester, a reading class is taught at one PDS, an advanced methods course at another site, and a third site has begun hosting a Foundations/Methods course. Meeting at an elementary school during the time the school is in session provides hands-on examples, demonstrations lessons, and access to a variety of curriculum materials. University candidates have the opportunity to combine pedagogy and practice at the school site. For example, they may receive instruction in a specific assessment and then have a chance to actually use the assessment with children at the school site. It is not unusual to find a veteran teacher from the PDS participating in the university lessons to expand their own professional growth.

RESEARCH ON STUDENT OUTCOMES

The faculty at CSU Fullerton are not adverse to the challenge of addressing the impact of PDSs on K–12 student outcomes (Knight, Wiseman, & Cooner, 2000). Knight and colleagues report much of the literature on PDSs indicates perceived benefits but do not report student outcome data in direct relation to a component of enhanced instruction provided by the university. It is important to look at student outcomes, such as improved quality of student work and better grades on report cards. Data are available to indicate that the PDS relationships fostered by CSU Fullerton Department of Special Education have been beneficial for student outcomes. For example, at Mariposa Elementary School, the PDS faculty concentrates on certain grade levels each year. Two years ago, the focus was reading instruction. Statewide test scores improved by 12%. When the emphasis was strategy instruction for the sixth grade teachers, statewide standardized test scores for this grade level improved from 68% to 80.7% (see Table 1).

Table 1. Evaluation of PDS Effectiveness from Annual State Assessment Scores*: Mariposa Elementary School

Grade Level:	*2*	*3*	*4*	*5*	*6*
Total Reading 2001	79	74	76	71	76
Total Reading 2000	71	70	73	72	73
Total Reading 1999	72	61	71	64	71
Total Math 2001	86	86	85	77	86
Total Math 2000	76	80	77	80	69
Total Math 1999	73	72	77	66	72
Total Language 2001	83	79	81	74	78
Total Language 2000	70	77	78	76	77
Total Language 1999	74	66	75	73	69

Note. * = National Percentile Rank for average student scores.

At Sunset Lane Elementary School, since the inception of the PDS, students at some grade levels have achieved higher than in previous years on State exams (see Table 2). Areas where scores have not improved have been targeted for staff development and intervention. Due to these efforts, Sunset Lane is eligible for state monies as a reward for exceeding progress goals over the past two years. In addition, Sunset Lane was selected as a California Distinguished School in April, 2002. According to the principal, it was Sunset Lane's PDS status that set it apart from the other schools in the district not selected. At Scott Avenue, in every grade level the scores either maintained or advanced (see Table 3). In regard to student improvement on state exams, the authors realize we cannot make direct correlations with PDS efforts. However, the principals and teachers of all three sites compliment the relationship with the university, and they often cite one reason for student improvement on all test scores is collaboration with the university.

Table 2. Evaluation of PDS Effectiveness from Annual State Assessment Scores*: Sunset Lane Elementary School

Grade Level:	*2*	*3*	*4*	*5*	*6*
Total Reading 2001	71	67	65	67	63
Total Reading 2000	70	69	66	53	71
Total Reading 1999	69	63	52	67	69
Total Math 2001	81	79	79	79	82
Total Math 2000	80	84	73	66	83
Total Math 1999	80	74	58	71	80
Total Language 2001	76	73	75	75	73
Total Language 2000	70	77	72	60	76
Total Language 1999	69	71	61	68	77

Note. * = National Percentile Rank for average student scores

Table 3. Evaluation of PDS Effectiveness from Annual State Assessment Scores*: Scott Avenue Elementary School

Grade Level:	*2*	*3*	*4*	*5*
Total Reading 2001	60	58	57	50
Total Reading 2000	56	51	54	48
Total Reading 1999	53	54	54	48
Total Math 2001	65	74	63	67
Total Math 2000	59	65	60	61
Total Math 1999	63	71	61	55
Total Language 2001	51	59	56	63
Total Language 2000	51	53	52	55
Total Language 1999	50	57	53	54

Note. * = National Percentile Rank for average student scores

DEMONSTRATION LESSONS

A key criteria in building the PDS relationship between the school and the university is the willingness on the part of the school personnel (i.e., teachers and administrators) to be a part of the teaching team for novice teachers. One powerful collaborative feature is when special education teacher candidates attend a Demonstration Lesson at their assigned PDS site. Demonstration Lessons are taught by site teachers with particular expertise or interest in a given area, not necessarily by teachers who are serving as master teachers for the semester. According to Yopp et al. (1993), it is beneficial for all teachers to at some time conduct a demonstration lesson: "...by planning and conducting a demonstration lesson, the site teachers are gaining expertise—they are enhancing their own skills and knowledge" (p. 32). Involving non-master teachers in the demonstration lessons expands staff involvement in teacher candidate development and provides candidates wider exposure to staff expertise.

Demonstration Teachers prepare an informal written lesson plan for the candidates and outline the purpose and structure of the lesson. Candidates have the opportunity to talk with the demonstration teacher shortly after the lesson. Demonstration Teachers arrange this by assigning independent practice for their own students, scheduling the lesson before recess, or arranging with a university faculty member or principal to cover their class. This opportunity helps candidates understand the basis for the demonstration teacher's curricular choices and instructional decisions.

Demonstration Lessons are scheduled for both student teacher candidates and candidates working in the field on alternative certification (see following section). After viewing a lesson, a pair of student teacher credential candidates are required to teach an application lesson. In this lesson they apply what was learned about the particular strategy modeled by the Demonstration Teacher. The other site candidates observe the application lesson and complete an application lesson processing sheet. All candidates participate in discussion of their perceptions at the close of the lesson The oral or informal written comments from the Demonstration Teacher serve as an appreciated support for the teacher in training. Selected Demonstration Lesson topics match the content presented in the CSU Fullerton methods courses. This model was originally designed by CSU Fullerton faculty members Hallie Yopp and Andrea Guillaume (1999).

ALTERNATIVE CERTIFICATION CANDIDATE OBSERVATIONS

CSU Fullerton candidates may be employed as a teacher by a local school district under an Intern Credential or Emergency Permit. These are California terms for Alternative Certification. Candidates have full-time teaching responsibilities, yet they have not completed their teacher training program. Candidates also do not have a master teacher mentor. The research on alternative certification states that many times the teacher is never able to view a veteran teacher because they are in their own classrooms full time. The Department of Special Education at CSU Fullerton requires all persons working in a teaching position under an internship or emergency permit to spend at least one day per semester at a PDS. These observation days provide an opportunity for the candidate to observe stellar teaching and witness model demonstration lessons. When teacher education candidates visit one of the CSU Fullerton Department of Special Education PDSs, they have the opportunity to view research-based effective teaching firsthand.

The principal collaborates with the university faculty liaison to establish an observation schedule for the day. Teachers volunteer to teach a lesson in a specified subject area (e.g., reading, written language) and efforts are made to have at least one teacher from each grade level conduct a Demonstration Lesson. Teacher education candidates are given a schedule and a list of "things to look for" during the observations. At the close of the day, the faculty member and various teachers are available to debrief with the candidates. Candidates share what they observed, including how the lesson was structured, how the teacher involved all students, classroom management techniques observed, and even how room environment promoted learning. The faculty have recorded these debriefings and used them as talk points for future PDS forums.

FACULTY EXPERTISE UTILIZED AT THE PDS

University faculty members volunteer time to observe Pre-K to sixth-grade students, support teachers in the classrooms, model lessons, and cover classes during demonstration debriefings. One important role faculty provide is expertise for veteran teachers, ranging from one-to-one support to formal presentations at staff in-service days. For example, recently one of the PDS sites had a large group of children with autism move into the neighborhood where the school is located. University faculty observed each child and provided individual curriculum suggestions, and an expert in autism from the university presented to the staff members at the PDS. At another PDS, teachers needed strategies for improving comprehension instruction. The CSU Fullerton faculty liaison gave an after-school workshop for the entire staff on research-based comprehension strategies. University faculty also provided expertise in grant writing and research and in connecting schools with community resources for children with special needs.

EXTRACURRICULAR ACTIVITIES

The university teams with the school to provide supportive extracurricular activities. For example, each semester candidates who are enrolled in all sections of the math methods class are required to design a direct instruction math lesson. They must teach the lesson at Math Night for students and families held at the school site. The CSU Fullerton teacher education candidates bring all the materials, set up a station, and actually teach the lesson to children from a variety of grade levels and their families.

SPOTLIGHT ON THREE PROFESSIONAL DEVELOPMENT SCHOOLS

Currently the following sites serve as Professional Development Schools with the CSU Fullerton Department of Special Education: (1) Mariposa Elementary School, Brea-Olinda Unified School District, Orange County, (2) Sunset Lane Elementary School, Fullerton Elementary School District, Orange County, and (3) Scott Avenue Elementary School, East Whittier City School District, Los Angeles County. Each of these PDSs, while sharing commonalities, has separate and distinct foci determined by each school's area of greatest need for improvement. The uniqueness stems from the nature of the teaching staff itself, the school community, and from the relationship between CSU Fullerton faculty and the group of teaching professionals. At Mariposa Elementary School, the primary focus is the inclusion of students with special needs into general education classrooms. Sunset Lane Elementary School chose co-teaching as its area of emphasis, while Scott Avenue Elementary School centers its efforts on classroom management and student behavior.

Mariposa Elementary School

Mariposa Elementary School is a K–6 school serving approximately 600 students in a suburban neighborhood of Brea, California, about ten minutes from the CSU Fullerton campus. Over the past decade, parts of this city have experienced dramatic changes in numbers of minority and lower socioeconomic students served. The community surrounding Mariposa is rich with cultural diversity, with more than 60 dialects and languages spoken in the region where the school is located. More recently, there has been a dramatic increase in the variety of special education students, with the greatest increase in numbers of children with autism.

As a PDS, Mariposa is unique in that it is a fully inclusive school. This means that all neighborhood students with disabilities attend their home school rather than special schools outside of the neighborhood, and every Special Day Class (SDC) and Resource Specialist (RSP) student is assigned to a general education classroom. A collaboration/co-teaching model that includes both general education and special education exists in many classrooms. The Learning Center provides a place for children who need additional support to work in small groups or receive tutoring. The Computer Lab/Library, fondly nicknamed the "Research Center" by the sixth graders, is open daily to classes and individual instructional groups. The PDS for Mariposa Elementary School was established to focus on inclusion.

The Transformation to Full Inclusion

Five years ago Mariposa had the most referrals to special education of any school in the district. The Special Day Class (SDC) and Resource Specialist Program (RSP) were located in a double portable trailer on the far side of the campus. One of the special education teachers had previously taught at a collaborative PDS site in Texas and began to introduce new concepts to the other two staff members (who were job sharing at the time). Additionally, the principal retired early in the Fall and an interim site-administrator arranged for a special education faculty member from CSU Fullerton to conduct several workshops on effective teaching strategies for students with special needs in general education classrooms. Most of the teachers at the school had been in the profession more than twenty years and many were hungry for change and looking for ways to support the new population of diversity at their school site.

The CSU Fullerton special education department chair utilized past experiences to collaborate with the principal to initiate a PDS. One of the first team activities they completed was to write and implement a small grant to introduce collaborative co-teaching strategies at Mariposa Elementary School. Each special education teacher at Mariposa (there were three—one full-time and two part-timers who job shared) was asked to select a general education teacher and invited to attend a series of five co-teaching workshops. Once a month the teams (general educator/special educator) met for a brief lunch meeting. At each meeting a co-teaching model was discussed and each team was challenged to go back and experiment with the model in the classroom. Teachers began to see the benefits to all students and realized much of the co-teaching models (Friend, 1995) are based on effective teaching practices. The following year, two fourth grade teachers (who had also attended the co-teaching workshops) requested and received approval to open the walls between their two classrooms to allow co-teaching to occur daily. The CSU Fullerton faculty also provided training on full inclusion.

As the special educators spent more and more time in the general education classroom, the word spread. More general education teachers requested their assistance. The special educators took a particular interest in the Student Study Team (SST) at the school and, in collaboration with CSU Fullerton, helped to build a true prereferral/intervention model for students needing support. All students in the school began to recognize the special education teachers as "teachers" and asked them for support and assistance when they were in the general education rooms. The following year, the special education teachers collaborated with the university to design a Learning Center, a place where any child needing support could go to receive help. They moved out of the portable and into a classroom, located in the heart of the quad area at the school site. The same year the school opened a new Library and Computer Center. In most of the Kindergarten to sixth grade classrooms there is a specific table and workstation for the Learning Center teacher (i.e., the SDC or RSP teacher). Time is allocated in the schedule for the SDC and RSP teachers to go into these classrooms and teach small or whole groups, co-teach with the general education teacher, and to modify and accommodate the learning of students with special needs.

Every RSP and SDC student at Mariposa is assigned to a general education classroom at his or her appropriate grade level. They are included in all of the general education activities, assignments and extracurricular events; they are true members of the classroom. The special education teachers meet with the general education teachers on a regular basis (usually weekly for SDC) to go over various strategies and discuss ways the students with learning disabilities can receive support, access the core curriculum, and be programmed for success. When challenges occur, the CSU Fullerton staff is available to support this team. The principal has continued to encourage staff development in the area of effective teaching strategies. Teachers are frequently invited to in-services and/or staff development opportunities.

All Mariposa teachers practice research-based strategies and are open to sharing their knowledge base with the candidates from CSU Fullerton. During the past few years many CSU Fullerton teacher education candidates have benefitted from this partnership. The school provides wonderful observation opportunities, fieldwork practicum, student teaching and intern/emergency teacher demonstration lessons. Each semester at least one university course is taught at Mariposa. A key criterion in building a PDS relationship has been Mariposa's willingness to be a part of the teaching team. Each Tuesday morning during the initial part of the first semester, special education teacher candidates at the PDS site attend a Demonstration Lesson.

If you visit Mariposa, you will witness an exemplary, school-wide Full Inclusion Collaborative/Co-Teaching Model. The special educators who were originally job sharing are now each full time (one RSP, the other SDC). There is one para-educator assigned to the RSP and two to the SDC program. The Learning Center is open all day, however, you will generally not see the RSP or SDC teachers in the center until late afternoons. They spend the majority of their days (8:30 a.m. to about 2:00 p.m.) teaching in general education classrooms. They implement one-on-one, station, parallel, team, and co-teaching strategies (Friend & Bursuck, 1999). At 2:00 p.m., the Learning Center is open for any child to come in for extra support.

Idol, Paolucci-Whitcomb and Nevin (1994) indicate one of the signals of successful collaboration is when a program is not "people driven" but "program driven." This is certainly true at Mariposa, as the collaborative inclusion support program is in place even though two of the original key personnel have left the school site (the special education teacher moved back to Texas and a permanent principal was hired). The general and special educators communicate, cooperate, and collaborate because a system has been designed to support their working together.

Student Improvement at Mariposa Elementary School

Since the inception of the PDS model, the referrals to special education have been reduced by approximately 30%. Teachers have been trained and are more willing to use a variety of strategies to support the low performers in the general education classroom. This has been demonstrated in both standardized assessments and teacher-created criterion-referenced assessments. Students enrolled in the special education program have made an average of twelve months growth each year (over a nine month school year).

Last year, a university student was hired to collaborate with teachers to work with a group of highly gifted children. The differentiated curriculum allowed these students to progress further in the curriculum than their peers and to receive one-on-one support for their achievement. Additionally, during the past three years, students in the advanced methods course at the university have collaborated with the approximately 90 sixth-graders each year in an innovative "computer buddy" project. Students read a book in small groups as part of a literature circle. Books chosen for this project are award-winning novels at the groups' reading level. College students e-mailed (and the third year used a Blackboard internet site) inquiry questions to the literature circle, the sixth graders discussed the answer in their literature groups, and then they responded back via the Internet to the college students. It is believed that this project is one reason sixth graders improved their standardized test scores. The project enhanced computer literacy, reading, and critical thinking abilities.

Paradigm Pioneers for Exemplary Full Inclusion

The university teacher education candidates are able to witness first hand the collaboration/co-teaching model. They keep daily journal records of what they learn from the classroom experiences. Recently one special education teacher education candidate wrote, "I feel like I am seeing first hand one of the co-teaching classrooms we read about at the university." Another wrote, "I cannot believe how open my first grade teacher is to using the strategies the RSP teacher recently suggested. I have already witnessed an improvement in the child's work. I hope I can someday work at a school where the general education and the special education teachers are so collaborative."

During 1999–2000, CSU Fullerton Department of Special Education and Mariposa Elementary School received recognition for their collaboration from the State of California. They were one of four schools who received the Schwab Foundation for Learning Award for including children with disabilities. When various general education teachers were interviewed for the Schwab Award they described Mariposa as "a place to share professional expertise," "an opportunity to stay current on new educational issues and practices," "an environment for reciprocal teaching," and "a forum for sharing strategies for low performers." One teacher said the best part of the co-teaching model was "having the opportunity to observe my own students." Another remarked that "via parallel teaching I can cover so much more content and be assured the students are really understanding it." Most importantly, the principal observed: "Standardized test scores have improved significantly and referrals to special education have been reduced as a direct result of the CSU Fullerton-Mariposa partnership." The PDS development helped to nurture the movement away from segregated special day class and resource programs and toward the school-wide full inclusion model in existence today.

Currently, Mariposa's inclusion model is adapting to the increased numbers of children with autism in the neighborhood. These children pose particular challenges because of behaviors that are overstimulated by normal classroom environments. One way teachers have adapted is to simplify colorful bulletin boards and other visual distractions to reduce stimuli for these children. Classmates are learning new ways to react to usual behaviors so that the child with autism will remain calm. Despite these challenges, the principal and staff are committed to the inclusion model because of the immense social benefits for children with autism who participate in general education classes with their peers.

Sunset Lane Elementary School

Sunset Lane Elementary is a K–6 school of more than 800 students located in an relatively affluent section of Fullerton, California, about 25 minutes from: the CSU Fullerton campus. Sunset Lane Elementary is unique to this area in three ways. First, the school is located in Orange County, a region of California that is heavily populated with Hispanic and Southeast Asian families, yet the population at Sunset Lane is 63% Korean, 9% Hispanic, and 23% Caucasian. Thirty-four percent of the students at the school are English Language Learners, and new students who do not speak any English arrive continually throughout the school year. Over the past two years, 186 students have been classified as "immigrants." Second, although local families are very supportive of the school and its academic focus, many parents do not wish to have their child labeled as "having disabilities." Therefore, many children who would otherwise be eligible for special education are not receiving services and are integrated in the general education classrooms. Finally, despite the overall affluence of the area, Sunset Lane Elementary serves children from a group home and from low-income families who are very needy in terms of academics and behavior management. These factors pose challenges for the faculty at Sunset Lane Elementary School but also offer opportunities for collaboration with CSU Fullerton. Due to the unique community needs and changing classroom environments, Sunset Lane staff agreed to explore co-teaching as part of their PDS relationship.

A faculty member met with the Fullerton School District Office of Special Education, the Fullerton Elementary School Board, the principal and the faculty and staff at Sunset Lane Elementary School to build the foundation for a PDS. This effort followed guidelines suggested by NCATE which indicate that Professional Development Schools should be an important part of the continuum that underlies improvement of professional teaching practice. Participants at the initial meetings reviewed these guidelines and other PDS relationships with CSU Fullerton that provided examples of how university faculty and school staff could work together to foster co-teaching, teacher education candidate training, and other supports for total school improvement.

Collaborative Student Teaching

As of Fall 2001, twenty-four student teachers have been placed in twelve classrooms in teams of one general education and one special education student teacher. These teacher education candidates learn professional collaboration by working together from different disciplines to build student achievement. Their master teachers learn methods for co-teaching, how to collaborate with different disciplines, and how to better modify instruction for students at-risk for failure or for special education. Additionally, CSU Fullerton faculty from Special Education and General Education collaborate to ensure the success of these experiences for student and master teachers.

At the beginning of each semester, the teacher education candidates visit classrooms at each grade level and observe instruction and management procedures. They are then matched to a master teacher and meet together with CSU Fullerton faculty for a full day of Collaboration/Co-teaching training. This training includes videos of student teaching teams from previous semesters to illustrate how two teachers can work together with students in a single classroom. Teams of teachers are then given time to plan out the remaining semester so that teacher education candidates will meet State Competencies for general education, teach at least one week on their own, and have time to co-teach at least two lessons. Over the course of the semester, a team of supervisors, one from general education and one from special education, observe student teaching and meet with the students and their master teachers to assess progress. The goal is to continue this program each semester and, for the immediate future, to have all teacher education candidate teams videotape themselves co-teaching in order to analyze their teaching with the assistance of their supervisors.

Professional Development

Each semester, the faculty at Sunset Lane Elementary School meets together to choose an academic focus for the year. CSU Fullerton faculty then offer professional development to teachers to help them meet their goal. For 2000–2001, the faculty chose reading comprehension. In addition, the site principal requested that a high priority of the PDS project be the development of the teachers' ability to analyze the multitude of assessment data available to them and to use this information to drive instruction. To meet both of these needs, CSU Fullerton faculty provided funds for a release day for five teachers who would serve as a school-wide "Assessment Team." Team members learned from CSU Fullerton faculty how to utilize formal and informal comprehension assessment data to plan for improved instruction and to assess the results of this instruction on student learning. The goal for this team was to train other teachers at their grade-level to do the same next year.

Student Improvement

Despite these gains, some students still fell below the 25% on state and local assessments. These students are targeted for intervention with the assistance of CSU Fullerton faculty. For 2001–2002, focus will be placed on Fourth Grade Written Language. All Fourth Grade teachers will participate in staff development to improve their ability to teach written language. Students who scored below the 25 percentile on the State Assessment in Written Language will receive intensive five days per week instruction before school for six months. Teachers for this program will be trained by CSU Fullerton faculty to use research-based strategies for improving reading and writing for at-risk students. To determine the effectiveness of the program, reading and written language data has been collected and will be evaluated against posttest data this coming spring.

Paradigm Pioneers for Exemplary Co-Teaching

Data have been collected from students participating in this experience in many ways, including weekly journal writing, surveys, and face-to-face meetings before, during, and after the student teaching experience. Excerpts from journals included statements that showed teacher education candidates found the experience of co-teaching valuable and that the practices of special education and general education could be combined for student success. One student, a general education teacher candidate in the second semester of student teaching, wrote, "My co-teacher and I worked well together. I enjoy having someone else for support. One of the best things about co-teaching is if an emergency arises, one can take care of the problem while the other continues to teach." The master teacher, teacher candidate, and co-teacher participated in training from CSU Fullerton faculty on inclusion strategies for a child with autism who was included into their classroom. They learned a behavior management idea called "Social Stories" (Gray, 1995). Together, they adapted this idea for a student with language and learning disabilities. This student often had difficulties on the playground because of an inability to verbally communicate his needs to other children and, as a result, would become upset and very frustrated. When this occurred, one co-teacher would sit with the child and ask the child to draw pictures of experiences in a notebook, then dictate to the teacher what had happened. Finally, they would "draw" a scenario for handling the problem in the future.

The CSU Fullerton faculty member asked these teacher education candidates to share their behavior management plan with other teaching teams, and at least one other team adopted this plan for their own classroom during the semester. One member of this team wrote in the student teaching journal, "I am very excited about co-teaching. My co-teacher is very helpful when I have questions. We decided to plan all of our lessons together." This team experienced a challenge when one member had to suddenly leave due to a death in the family. Now alone, the candidate observed, "I was disappointed because we were working so well together, but it gave me a chance to teach on my own. I feel I really needed this experience." Later, when the colleague returned, the candidate wrote enthusiastically that their relationship had sustained: "We went right back to planning and implementing lessons together!"

Not all student teaching teams reported positive experiences nor did they collaborate as well. One second-semester general education student seemed frustrated by her colleague's lack of experience and felt there was not much communication between them, although they did share classroom management ideas. This team only used one co-teaching model, one lead one support, for the entire semester. The co-student teacher, a first semester special education teacher, was pleased to work with someone more experienced. This candidate wrote that having someone with which to observe and share information was helpful and that "having a co-teacher relieved the stress" of being in a classroom for the first time.

Survey results showed that teacher education candidates felt that: (a) they were able to work out their roles during classroom instruction, (b) they were accepted as equal partners in the classroom by administrators and parents, (c) students in their classrooms received more individual help during class instruction, and (d) they would like to co-teach again with other teachers at their school sites. Teaching students also reported that they learned new instructional, behavioral, and motivational strategies from their co-teacher and that strategies designed together were superior to those they would have designed on their own.

Master teachers are constantly queried as to their perceptions of the co-teaching process and what support was needed from CSU Fullerton faculty to make the process work for them. Over time, these hard-working professionals have helped to shape and polish the program so that it runs more smoothly. Initially, the master teachers seemed at a loss as to how to work with two student teachers at once. One of the earliest complaints was that it was difficult to find time to answer questions from two very eager student teachers. At our first end-of-the-year meeting, one teacher said, "I need some alone time during the day, just to collect my thoughts about the rest of the day. The teachers are asking good questions, but it is all the time, and I get tired!" To solve this problem, students were told to write questions into their journals and to schedule time to ask them of the master teacher. This has worked well, and no master teachers reported this problem the following semester.

Another concern arose when master teachers reported that they felt "left out" of the co-teaching relationship and perceived that they were not being asked to be involved in the co-teaching lesson planning and implementation. It was also observed that co-teaching was not a model that general education and special education teachers on the campus used very often. Therefore, teachers had few opportunities to model this process for their students. To address these issues, CSU Fullerton faculty hosted a beginning of the year seminar for supervisors, master teachers, and teacher education candidates. The commitment of the site administrator to the co-teaching concept was evidenced by the fact that she hired full-day substitutes for the master teachers and attended the meeting to lend her support and make it clear to her teachers that collaboration and co-teaching were valued at Sunset Lane. During the morning session, CSU Fullerton faculty modeled co-teaching as they presented an overview of co-teaching and collaboration. This included videotaped, co-taught lessons from previous teacher education candidates and visits from classroom teachers who had served as master teachers. One of these had been on a co-student teaching team and was subsequently hired at Sunset Lane Elementary. In addition, it was announced that the special education teacher at the school site would be coming into each student teaching classroom at least once to model co-teaching with the master teacher. Work time was provided both during lunch and in the afternoon to encourage teams of master teacher/teacher education candidates to plan collaboratively for co-teaching in the coming weeks. Candidates were encouraged to "try out" co-teaching with their master teacher before trying it with each other. To further encourage collaboration, supervisors announced that teacher education candidates would be expected to plan and execute a co-teaching lesson that would be video taped for lesson analysis and further planning.

We are looking forward to hearing from all participants at the end of this year, and hope that, as a result of working to model co-teaching with the teacher education candidate teams, the master teachers at the school site will begin to participate in more co-teaching with their colleagues. We plan to follow graduates after they have obtained teaching positions to see if they are using any of the co-teaching models they have learned as a result of this experience.

Another paradigm shift has transformed the role of the university supervisor at Sunset Lane Elementary School. Initially, one CSU Fullerton faculty served as PDS liaison and supervisor for student teaching teams. This year, a supervision team consisting of an elementary education faculty and a special education faculty rotate through the classes where the general education and special education teacher candidates are working together. These supervisors confer on a weekly basis to discuss student teacher observations, strengths and needs of the individual student teachers, and concerns of the master teachers. Some of the observations are debriefed afterward with teacher education candidates so that teacher candidates see the supervisors together as another form of collaboration. When only one of the team does the observation visit, the information is shared with the colleague. Student teaching seminars are held at the school site, and many master teachers have expressed a desire to participate in the seminars. Seminar topics support collaborative relationships and are student-driven, based upon self, supervisor, and master teacher analysis of the students' strengths and needs. At a recent seminar, students learned about a federally-funded web site for teacher collaboration, "Power of 2" (http://powerof2.org). From a myriad of possibilities on the site, teacher education candidates can read lessons from and interviews with other co-teachers, assess their personal levels of flexibility and views toward collaboration, and write lesson plans for co-teaching.

Scott Avenue Elementary School

Founded in 1958, Scott Avenue Elementary School is located in the East Whittier City School District in Los Angeles County, about thirty minutes from CSU Fullerton. This K–5 school has a diverse student population of approximately 600 students who speak more than ten different languages. Staff, parents and students work together to establish a warm, safe, and nurturing school environment. The school's mission advocates for opportunities that stimulate individual interests, promote self-esteem and personal growth, and encourage each student to reach his/her fullest potential.

In accordance with NCATE guidelines for establishing a PDS, in the Fall of 1998 CSU Fullerton faculty met with the principal and the learning specialist of Scott Avenue Elementary to begin a collaboration, resulting in the school becoming a PDS. The current principal has promoted a school-wide philosophy that educators must make intentional decisions to make learning accessible for all students. Thus, a paradigm match exists between CSU Fullerton and Scott Avenue Elementary in the areas of classroom management, collaboration, and exemplary instruction.

One of the key areas new teachers struggle with is classroom management. The first course in the CSU Fullerton training program utilizes Harry Wong's *How to be an Effective Teacher, The First Days of School* (1999). Since many of his classroom management ideas are already in use at Scott Avenue Elementary, this school provides a perfect model for CSU Fullerton teacher education candidates. This site provides exemplary models for teacher education candidates to observe individual, classroom, and school wide systems for behavior management. In addition, effective instruction and strong classroom management are linked at Scott Avenue Elementary School. Teachers are specifically trained in behavior management skills, classroom environment and design, and classroom organization and structure that promotes learning.

Curriculum scaffolding, site-based decision-making, grade-level and departmental collaboration, commitment to ongoing supported staff development, and improvement for ALL students make Scott Avenue Elementary an exceptional school site. The Scott Avenue Elementary Learning Specialist remarked that even before the state standards were in place, parents of students at Scott Avenue Elementary knew that no matter which classroom their child was in, they would receive the same instruction as a result of close collaboration between teachers and across grade levels. It was also shared that collaboration meetings at Scott Avenue Elementary include the grade below and the grade above and all specialists. The fifth grade team collaborates and aligns with both grade four and grade six (placed at a local Middle School). This practice facilitates the often-challenging transition from elementary to middle school.

At the beginning of each school year, Scott Avenue Elementary opens its doors for CSU Fullerton teachers-in-training. The teacher education candidates attend a "first day of school" observational rotation. Observations are scheduled in classrooms where teachers volunteer to show exemplary practices. Observation days occur on the first day of school in September and credential candidates are able to observe introductory activities and best practices for establishing routines and effective classroom management. University supervision faculty attend with the students and support their observations with prompts which guide them to recognize and name best practices, how to "read the walls" of a classroom, and how to recognize effective strategies being observed.

Staff development is critical at Scott Avenue Elementary. Teachers participated in Strategic Intervention Model (SIM) training (Deshler & Schumaker, 1988) and Support-Provider Training hosted by CSU Fullerton Department of Special Education. As the relationship between CSU Fullerton and Scott Avenue Elementary School has grown, more and more staff participate in the University hosted professional development opportunities.

An exciting new example of collaboration and co-teaching at its best—Scott Avenue Elementary School has recently established a Learning Center model wherein general education and special education teachers collaborate on a daily basis to assess/diagnosis and prescribe instruction for individuals with special needs and plan effective grouping strategies based upon assessed student strengths and needs. Similar to Mariposa Elementary School's model, the Learning Center is open at lunch and recess for all students who need assistance. A CSU Fullerton teacher education candidate has been hired as a member of the Learning Center faculty.

Student Improvement at Scott Avenue Elementary School

Along with classroom management, math instruction is a strength that CSU Fullerton and Scott Avenue Elementary share. A Math Night is provided for children and their families each year by Special Education teacher candidates on the Scott Avenue Elementary campus. This evening is coordinated and implemented as part of the curriculum for a Mathematics Methods course at CSU Fullerton. This event draws more than 200 students and their families. Student math scores have improved an average of 6 NPR (National Percentile Rank) points in 9 months in the second- through fifth-grades (see Table 3). The principal believes that students' growth in mathematics achievement is directly related to parent involvement. It is believed that the CSU Fullerton Math Night plays a major role in empowering parents to help their children with mathematics.

Another effect that the PDS relationship has had on the students at Scott Avenue Elementary and on the district as a whole is to allow teacher education candidates to impact classroom instruction. Recently, a teacher education candidate working in a third-grade classroom created a unit which highlighted a population of local Native Americans. At the time, the district was working to improve the third-grade curriculum in this area, and this unit was brought to the attention of the curriculum committee. This unit has been incorporated into the district-wide curriculum for third grade.

Paradigm Pioneers for Exemplary Classroom Management

Scott Avenue Elementary and CSU Fullerton make an awesome team! Master teachers and the CSU Fullerton student teacher supervisor meet regularly to collegially problem solve and to implement effective practices in order to program the teacher education candidates for success. Teachers are challenged to grow and hone their skills as they present effective teaching strategies for teacher education candidates to observe and practice. Our teacher candidates benefit from the expert classroom management modeled at this site as well as the hands-on direct instruction they practice under the experienced guidance of their master teachers. Recently, Scott Avenue Elementary staff chose "Writing Across the Curriculum" as an annual goal. Teacher teams are collegially analyzing student writing samples to promote improved outcomes based on standards.

Formal data collection on the PDS relationship is in the early stages at Scott Avenue Elementary School. CSU Fullerton faculty are analyzing journal entries and interviews from teacher education candidates, conducting focus groups with master teachers, and planning to track specific academic and behavioral student outcomes.

CONCLUSION

The Individuals with Disabilities Education Act (1997) calls for new levels of accountability among both general and special educators. It also creates urgent need for: (a) training on how to set goals for and to meet education standards for children with disabilities, (b) collaboration among all players in an effort to ensure access to general education curriculum for ALL students, and (c) training and staff development for teachers and administrators on how best to meet the needs of students with special needs in general education classrooms. An infusion of collaborative efforts on the part of University teacher training programs both in general and in special education and public schools to meet these needs comes through the CSU Fullerton Professional Development School Concept.

The first of Fountain and Evans (1994) assumptions for collaborative change stated that "successful change initiatives depend on collaboration and shared dialogue" (p. 218). As indicated above, members of each PDS values the collaboration between the university and the school leaders. Participants at each site have seen first hand how the joint collaborations and shared decision making has improved student learning. The second assumption for collaborative change was "successful restructuring efforts of public schools and colleges of education must be situations and problem-based" (p. 218). Mariposa Elementary School was challenged by the need to move from a traditional school-based learning model to a fully-included site. They not only met the challenge but exceeded it by establishing a first-class training ground for teacher education candidates from CSU Fullerton and by becoming a site for teachers across the state who come to observe, learn, and take the model back to their own sites. Sunset Lane Elementary School accepted the challenge to allow general education and special education teacher education candidates to work collaboratively in the same classroom to learn to accommodate the needs of ALL students. Scott Avenue Elementary School was challenged to share their expertise and become a training site for teacher education candidates to learn exemplary individual, classroom, and school-wide behavior management systems.

The third assumption presented by Fountain and Evans (1994) suggests a need for successful collaborative activities depending on the extent to which they succeed in transforming independent but interrelated goals into mutually beneficial actions. As each partnership began, trust was established and challenges were faced as a team instead of independently. Each site began with initial conversations and placement of student teachers, and followed by discussion of experimental program designs, both in the classroom and in the faculty lounge. Knowledge and experience gained from each of these were connected to create interrelated goals. In every case, the PDS partners saw student and faculty growth and improvement and were inspired to continue.

The final assumption, "the distinctive and dissimilar cultures of public schools and colleges of education require changes in the norms of interaction between these cultures, making conscious efforts to create shared culture including collaborative decision making" (Fountain & Evans, p. 218) has been at the heart of the PDS models described here. The idea of the "ivory tower" does not exist at CSU Fullerton. The three schools described here meet the new standards for the clinical preparation of teachers developed under the auspices of the National Council for Accreditation of Teacher Education (released October 16, 2001). These three schools meet the challenge of what NCATE describes as innovative PDS institutions. They are analogous to teaching hospitals in the field of medicine where physicians complete their training (Holmes, 1990). All stakeholders benefit from the relationship. Schools profit from the easy availability of university faculty and resources, from professional development for teachers, and from the assistance of teachers-in-training in their classrooms. Benefits to the university include the opportunity to conduct research, teach courses, and have teacher candidates apply learning in real school environments. In addition, working so closely with schools keeps the faculty on the cutting edge of best practices and current school realities. An added benefit is that participating so closely with school personnel in the day-to-day activities of education improves CSU Fullerton faculty credibility as "experts" and our ability to teach new teachers in a way that could not be possible outside of a PDS relationship. The benefits for special education teacher education candidates are multiple, including the ability to practice skills in natural settings, observe exemplary lessons first-hand, and to begin to understand the culture of an elementary school.

Prior to implementation of the PDS programs at CSU Fullerton, master teachers and others who supported our training efforts had never faced such a high degree of accountability and transparency as educators nor had they ever been empowered to educate all children to the fullest extent of their capabilities. Having college students on the campus has "raised the bar" professionally for all involved. Collaboration between university and schools provides a heightened sense of community development among administrators, college faculty, teacher education candidates, teachers and the school staff (Grishman et al., 1999). The greatest challenge for PDSs at CSU Fullerton is to show over time that these relationships have led to what Fullan (1991) refers to as "second-order changes" in which the schools involved are altered in fundamental ways rather than merely mastering temporary innovations of "first-order change." Mariposa Elementary School has already achieved a second-order change and, with time and commitment, it is hoped that the same will be true for Sunset Lane Elementary, Scott Avenue Elementary, and for future Professional Development School sites in formation.

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CHAPTER 7

PROFESSIONAL DEVELOPMENT SITES AND STUDENT TEACHING PLACEMENTS

Myrna D. Cohen and Janice L. Nath

ABSTRACT

Whether or not all pre-service teachers should remain at Professional Development School (PDS) sites for student teaching is a question that involves political as well as educational and practical considerations. One field-based teacher education program at a large urban university grappled with this question, eventually arriving at the decision to implement an innovative policy wherein students could decide this issue for themselves. In this chapter, the policy is evaluated by analyzing the decision-making processes of elementary level pre-service teachers ($N = 225$) who chose whether or not to leave their PDSs for student teaching. A questionnaire measured the extent to which the subjects considered eight independent variables when making this decision. Using descriptive statistics, the priorities of those who chose to stay at PDSs ($N = 125$) were compared to those who chose to change sites ($N = 100$). Those choosing to stay at their sites gave significantly more thought to the quality of their pre-service education than did the others. Political and program ramifications of this finding are discussed.

INTRODUCTION

Field experience is discussed as one of the most influential components of a teacher's education (McIntyre, Byrd, & Foxx, 1996). Knowles and Cole (1994), for example, state that "structured experiences in the field—in places where teachers and students gather to learn—are a vital part of learning to teach" (p. 96). In the past, field experiences have, for the most part, been relegated to student teaching. However, in the newer models of pre-service training in Professional Development Schools (PDSs), initial and often intensive field experiences occur *prior* to student teaching. Development of these field-based models of teacher education generates new questions concerning student teaching field placements. As field-based programs offer pre-service teachers intensive field experiences at PDSs prior to student teaching, final student teaching placement policies and procedures in PDS programs may be in need of revision. One area of investigation into these policies is whether or not students involved in pre-student teaching at PDSs should remain at their original PDS campuses for student teaching.

Darling-Hammond and McLaughlin (1996) report that many reform models of pre-service preparation advocate student teaching at a PDS. Others, such as Wise and Leibbrand (1996) in their description of NCATE's standards, seem to agree that visiting a second school site may provide more variety which is needed so that "during an internship, the prospective teacher is provided with continuous feedback from a variety of trained professionals. The intern has the chance to reflect daily on the experience and to gain from a variety of perspectives" (p. 204). This variety may come from the growing trend to assign a student teacher to a team of cooperating teachers at one school (Zeichner & Miller, 1997). Yet, exposing students to mentors from different schools may ensure even more instructive variety. It is questionable whether it is better for pre-service teachers to have an overall variety of experience, including a different school setting, or to remain at one site.

On one hand, the PDS as a valuable concept is continuously supported (Book, 1996; Darling-Hammond, 1996; Darling-Hammond & McLaughlin, 1996; Wise, 1996; Wise & Leibbrand, 1996). Yet the quality of the experience needs continual reflection. As Knowles and Cole (1994) note:

> Many say that the field experience component is the most meaningful part of formal preservice teacher preparation. We would qualify that assertion. As Dewey (1938) reminds us, it is not enough to just have an experience or engage in activities; everything depends on the *quality* of the experience that is had, not only how agreeable it is but also how it influences later experiences. A primary influence on the quality of an experience is the context in which the experience takes place. (p. 96)

Well-selected PDSs certainly have much to offer pre-service teachers. In Knowles and Cole's discussion of field experiences in PDSs they maintain that, "Not only do these contexts more accurately represent the reality of classroom life, they also provide opportunities for pre-service teachers to engage in reflection and discussion organized around critical social issues in education" (p. 100). For example, carefully chosen PDS sites can provide experiences that prepare students well for teaching diverse groups in accordance with the infusion approach, as described by Zeichner and Hoeft (1996). Knowles and Cole remind pre-service teachers of the importance of actually working with diverse populations in pre-service training, noting:

> As you are aware, the demographics of school-age students is changing rapidly in North America.... Students belonging to groups referred to as minorities will be in the majority in many more school districts by the year 2000.... At the same time children of poverty are likely to occupy a greater place within schools—and they will represent all racial and cultural groups. Yet, in the face of student population changes, the teachers of these children are likely to become an ever more homogeneous group.... In the face of these demographic changes is the need for teachers to be more informed, reflexive, responsive, and understanding about their work with diverse student populations. (p. 139–140)

In addition, PDS placements can overcome common problems that persist in traditional student teaching placements. For example, they offer more control in the important selection of mentor teachers (Cole & Knowles, 1993; McIntyre, et al. 1996; Olson & Carter, 1989). The PDS model, by allowing for more university influence on the site, may discourage mentor teachers from overemphasizing the technicalities of teaching (Richardson-Koehler, 1988). Similarly, PDS sites have more promise than traditional sites in establishing congruence between teacher education program philosophy and classroom experiences (McIntyre et al., 1996; Myers, Jr., 1996). In addition, student teachers may be allowed more responsibility at a PDS where more extended experiences result in more trust on the part of the mentor teachers and the school as a whole (Zeichner & Miller, 1997). Furthermore, since pre-service teachers do not have to go through an additional socialization phase in a different school and become acquainted with a new mentor teacher and his or her ways, they can expend more energy on their teaching.

On the other hand, whether or not the qualitative advantages of PDSs extend throughout the student teaching semester is debatable. Choosing another non-PDS placement for student teaching also has advantages. PDSs may become so involved in school restructuring, school reform, and in-service teacher development that they become less attentive to the quality of pre-service practicums (Zeichner, 1992). Intense involvement with one school and primarily one mentor may be comfortable and professional but limiting in the variety of growing experiences required for learning to teach. Pre-service teachers may do well to be exposed to non-PDSs that are more typical for their professional futures. This may be particularly applicable in large urban areas that have a varied range of school districts.

As we institutionalized our field-based program at our large, urban university, we grappled with the issue of whether or not to insist that our students remain at their PDSs for student teaching. Indeed, we began to question the entire vision and definition of what a PDS was. We originally assumed that a PDS would be an all-inclusive experience for each of our pre-service teachers, although it is unclear whether or not this is indeed a characteristic of a PDS (Book, 1996; Sykes, 1997). However, in addition to considering the educational advantages of site switching mentioned above, we later found that it was impossible, both practically and politically, to have all of our students remain at their PDSs for student teaching. On the practical level, most of our PDSs did not have the facilities to comfortably accommodate such large numbers of student teachers. This was especially true for schools that admitted a new group of pre-student teachers each semester. For those schools using this intense rotation, for example, 20–28 new pre-service teachers would be entering a site during some semesters, while 20 more were to continue on site for their student teaching. Certainly, the logistics for a school accommodating this number of additional adults is daunting, as it puts a strain on basic facilities such as parking, restrooms, refrigerator space, and the like. Some schools opted for a less intensive rotation wherein they would admit new pre-service teachers every other semester. This meant that the site would continuously have pre-service students on campus, either as pre-student teachers or as student teachers, but not simultaneously. This option alleviated some facility stress and also allowed for some "down time" for mentors, a critical factor in helping to maintain enthusiasm and avoid burn out.

Yet, this alternating-rotation option did not help us with the dilemmas we faced on the political level. We found that since we have PDSs in only seven of the 30 districts of our Teachers Center, limiting student teaching placements virtually cuts off the majority of our partner districts from access to our students. Many districts questioned whether or not they should remain in our Teachers Center at all. It was also strongly felt that if school districts decreased their ties with our college of education, this in turn, could politically hurt our overall effectiveness as a possible change agent throughout our wide urban area. Moreover, it seemed unreasonable to deny our students the opportunity to student teach in districts in which they eventually would want to be employed. It is also noteworthy that even within our PDS districts, we were faced with the displeasure of principals of schools not chosen as PDSs. They felt that, although there were PDSs in their district, they were being denied the opportunity of recruiting and getting to know and help mold perspective teachers in their buildings.

In light of the educational, practical, and political factors mentioned above, we began to favor more flexibility in student teaching placements. Yet the option to leave the PDS for the student teaching semester was a dramatic programmatic change from our piloted field-based model, wherein all students were required to remain at their PDSs for student teaching. Some faculty regarded this as a violation of our original program conception and adamantly opposed it. These professors had often developed close ties with the principals of their PDSs and felt that by allowing pre-service teachers to leave, these schools were being cheated out of one of the greatest benefits for becoming a PDS—recruitment. These faculty members also valued the continuity of working with pre-service students for the entire duration of the program, as a student teacher opting to student teach in another district would most probably work with another faculty member or adjunct supervisor during student teaching. Some faculty resented letting go of their students. Even after the change was instituted, some faculty members refused to honor it and coerced students into following the original plan of remaining at their PDS for student teaching.

Despite the dissent of one or two faculty members, we decided to implement this policy change and we carefully considered how to administer it. We wondered whether our students could make this important placement decision for themselves. We reasoned that since pre-service teachers become intimately familiar with their PDSs, they themselves could be the best judges as to the benefits of keeping or changing their placement sites for student teaching. We reasoned that leaving this decision in their hands could be an opportune way to ensure all our pre-service teachers quality field experiences, *provided that they valued the educative aspects of their placement decision and made sound reflective choices.* It also could increase motivation by granting more control and responsibility to our pre-service teachers for their own professional education. The present study investigated the thoughts and priorities behind our pre-service teachers' student teaching placement requests and aided in the evaluation of our policy change.

PURPOSE OF STUDY

The purpose of this study was to analyze the decision-making processes of elementary level pre-service teachers as they requested their student teaching field placements. The extent to which they considered issues of (a) professional development, (b) mentor quality, (c) future job possibilities, (d) external influences, (e) personality factors, (f) culture (g) location, and (h) safety was measured. The priorities of those who chose to stay at

PDSs were compared to those who chose to change sites. We hoped that all of our students would highly prioritize those variables related to the quality of their pre-service education (professional development, mentor quality, and culture) when making this important decision.

PARTICIPANTS

All 225 participants in this study were enrolled in a restructured field-based teacher education program located at a large urban university in the south central part of the United States. This program established seven PDS clusters, each comprising two, three, or four schools that were located throughout this large urban area. Clusters were by and large made up of elementary schools, but some included intermediate schools (grades five and six) or middle schools (grades seven and eight). Approximately 18–28 students were assigned to each cluster. Six of the clusters consisted of all university seniors, while one consisted of all post baccalaureate students seeking certification. Although all participants were pursuing elementary teacher certification (grades one through eight), most preferred placements in grades one through four. Most participants lived in one of the 30 districts that are members of the university's Teachers Center. During the pre-student teaching semester(s) of the program, the pre-service teachers attended methods and generic teaching classes at their PDS sites and worked in their assigned PDS classrooms for the remainder of their four-and-a-half days per week that they had committed to the program. They also began some initial teaching experiences in real classrooms and conducted intensive field work at these same sites for one or two semesters prior to their 14-week student teaching semester. The majority of our participating students were white females (see Table 1).

Table 1. Etnicity and Gender of Subjects

Ethnicity	*Percent*	*Gender*	*Percent*
White	58	Female	95
Hispanic	15	Male	5
Black	6		
Asian	5		
Other	1		
Non-Identified	15		

METHOD

For two consecutive semesters an anonymous questionnaire was administered to pre-service teachers during their student teaching orientation—a few days prior to the beginning of their student teaching semester. All participants ($N = 225$) had completed their pre-student teaching at one of our seven urban/suburban Professional Development School clusters. During their pre-student teaching semester at a PDS site, pre-service teachers chose whether to student teach at their PDS ($N = 125$) or move to another non-PDS school ($N = 100$). A request could be made for any of the 30 school districts in the university's Teachers Center. Two versions of the questionnaire were prepared which included similar items constructed with wording appropriate to each situation. One version was written for those choosing to stay at PDSs, and one for those choosing to leave PDSs (see Table 2). Descriptive statistics (t-tests) were used to analyze the extent to which each group considered eight variables related to their placement choice and to discern differences between the two groups' decision-making preferences. Analyses concerning priorities of the groups were also conducted.

Table 2. Questionnaire Items According to Scales and Versions

	Professional Development Scale
Student Teaching at PDS Version	• I wanted to put all my energy into my student teaching rather than devote it to getting used to a new school. • I felt that there was still so much to be learned at my PDS school. • Staying at my PDS school allows me to understand more in depth the workings of a school. • I wanted to learn more about methods and strategies that I saw at my PDS school.
Student Teaching at Non-PDS Version	• I felt that the time and energy needed to adjust to a new school were well worth it in terms of what I would gain from becoming familiar with yet another school. • I felt that I'd already learned a great deal from my PDS school and that it was time to learn from another school. • I felt that it was more valuable to get to know another school than to deepen my knowledge of one school. • I wanted to be exposed to new methods and strategies that I did not see at my PDS school.

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Table 2. Questionnaire Items According to Scales and Versions (Cont.)

	Mentor Quality Scale
Student Teaching at PDS Version	• I really respect the SBTE* with whom I will be working. • I thought that the PDS site SBTEs would be especially good because they have been working in collaboration with the university. • At my PDS I got to know many teachers (in addition to my SBTE) to whom I could turn for advice. • I was concerned that I would not be assigned to a good SBTE at an unknown school.
Student Teaching at Non-PDS Version	• I was hoping to get a better SBTE at a new school than the one at my PDS. • I thought that teachers at a non-PDS would have more time for their student teachers since they have less university connections and responsibilities. • At my new school I'd work with one teacher without interference from others. • I was hoping to get a better SBTE at a new school.
	Future Job Possibilities Scale
Student Teaching at PDS Version	• I am hoping to eventually get a job at my PDS. • I want to teach in the district of my PDS school. • I believe that staying at my PDS will be beneficial for my future employment. • The beginning pay is high in the district of my PDS. • I know that the district of my PDS school needs teachers.
Student Teaching at Non-PDS Version	• I am hoping to eventually get a job at my new school. • I want to teach in the district of my new school. • I believe that changing to another school will be beneficial for my future employment. • The beginning pay is high in the district of my new school. • I know that the district of my new school needs teachers.
	External Influences Scale
Student Teaching at PDS Version	• I thought that there may have been negative consequences if I left my PDS. • The university faculty expected me to remain at my PDS. • My PDS promised to accommodate me for student teaching. • The principal and/or teachers at my PDS expected me to stay.
Student Teaching at Non-PDS Version	• I thought that there may have been negative consequences if I stayed at my PDS. • The university faculty encouraged me to change schools. • My PDS school could not accommodate me for student teaching. • The principal and/or teachers at my new school encouraged me to student teach there.

Table 2. Questionnaire Items According to Scales and Versions (Cont.)

Personality Factors Scale	
Student Teaching at PDS Version	• I got along with the university faculty at my PDS. • My personal philosophy of education matched that of my PDS. • My personal philosophy complements that of my SBTE.
Student Teaching at Non-PDS Version	• I did not get along with the university faculty at my PDS. • My personal philosophy of education was not that of my PDS. • My personal philosophy clashed with that of the PDS SBTE to whom I would have been assigned.
Culture Scale	
Student Teaching at PDS Version	• At my PDS there are children from ethnicities with which I enjoy working. • At my PDS there are children from economic levels with which I enjoy working.
Student Teaching at Non-PDS Version	• I thought that at my new school there would be students from ethnicities that I would enjoy more than at my PDS. • I thought that at my new school there would be students from economic levels that I would enjoy more than those at my PDS.
Location Item	
Student Teaching at PDS Version	• My PDS is in a convenient location.
Student Teaching at Non-PDS Version	• My new school is in a more convenient location than my PDS.
Safety Item	
Student Teaching at PDS Version	• My PDS is in a safe neighborhood.
Student Teaching at Non-PDS Version	• My new school is in a safer neighborhood than my PDS.

[*] SBTE = Site Based Teacher Educator (mentor)

DATA SOURCE

The questionnaire (see Table 2), consisting of 24 items comprising six scales and two independent questions, was developed by the researchers to measure the eight independent variables. This questionnaire is a revised version of an earlier one pilot tested by the researchers on a similar population in previous semesters. Modifications were made based on statistical analysis and respondent feedback.

On a five-point Likert scale, subjects indicated the extent to which they had thought about each item as they decided which student teaching placement to request. "One" indicated the most thought ("I thought mostly about this."), while "five" ("I didn't think about this at all.") indicated the least, and "three" indicated moderate consideration ("I thought about this.").

The scales measured the extent to which the subjects thought about Professional Development ($a = 0.76$), Mentor Quality ($a = 0.86$), Future Job Possibilities ($a = 0.77$), External Influences ($a = 0.70$), Personality Factors ($a = 0.82$), and Culture ($a = 0.87$). The Culture Scale was included only in the second administration of the questionnaire. Two independent questions, one relating to location and one to safety at the site, were also included.

RESULTS

As indicated in Table 3, *t*-tests revealed that the two groups differed significantly on five of the six scales. Those who chose to remain at their PDSs gave more consideration to Professional Development, Mentoring, External Influences, Personality Factors, and Culture. There were no significant differences between groups when considering Future Job Possibilities. The two groups did not differ in their considerations of the two independent questions relating to Location and Safety Concerns at the sites. Furthermore, group means also indicated that students remaining at their PDSs gave more consideration to all of the variables except "Future Job Possibilities" and "Location" than did those choosing to leave their PDSs.

Table 3. Comparison of Means

	Mean Group 1 (chose non-PDS)	*Variance Group 1*	*Mean Group 2 (Chose PDS)*	*Variance Group 2*	*Probability*
Professional Development	2.9075	0.9289	2.6233	0.6645	0.0174
Mentoring	4.395	0.9447	2.6313	0.8369	<.0001
Future Job Possibilities	3.0893	0.7374	3.1536	1.0020	0.611
External Influences	4.625	0.2771	4.0147	0.6237	<.0001
Personality Factors	4.54	0.5809	2.628	0.6806	<0001
Safety Concerns	4.06	1.4307	3.888	1.1486	0.2572
Location	2.43	2.5102	2.68	1.7839	0.2005
Culture*	4.29	1.5928	2.9012	1.5401	<0001

Notes: N1 = 100; N2 = 125; *N1 = 50; N2 = 81

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Table 4 indicates the order of importance that these variables had for each of the groups. Location was the top consideration for those leaving their sites, whereas Professional Development was second. For those remaining at the PDSs, Professional Development was the primary consideration while Location was fourth. External Influences were least important for both groups.

Table 4. Order of Importance of Variables for Each Group (most important =1; least important = 8)

Those Leaving PDS		*Those Staying at PDS*	
variable	*mean*	*variable*	*mean*
1. Location	2.43	1. Gen. Prof. Dev.	2.6233
2. Gen. Prof. Dev.	2.9075	2. Personality	2.628
3. Future Job	3.0893	3. Mentor	2.6313
4. Safety	4.06	4. Location	2.68
5. Culture	4.29	5. Culture	2.9012
6. Mentor	4.395	6. Future Job	3.1536
7. Personality	4.54	7. Safety	3.888
8. External	4.625	8. External	4.0147

DISCUSSION

Results indicate that there may be qualitative differences between students who make the decision to remain at their PDSs and those deciding to move elsewhere for student teaching. It is notable that students deciding to continue at their PDSs gave significantly more thought to variables most closely aligned to quality issues of pre-service education—Professional Development, Mentoring, and Culture. They also considered more seriously those variables related to interpersonal relationships such as External Influences and Personality Factors. Yet the groups did not differ on the more practical variables of Future Job Possibilities, Location, and Safety. In fact, an examination of the means indicates that students deciding to stay at their PDSs gave more thought than the non-PDS group to all of the variables except two seen as practical ones—Location and Future Job Possibilities. These results are remarkable as they suggest that our more reflective students, those who generally gave more thought to their student teaching decision and who highly prioritized the quality of their pre-service education, were those who remained at their PDSs. Given this trend, districts in our Teachers Center may be disadvantaged in obtaining equal access to our more exemplary teacher candidates, as those candidates tend to request to continue student teaching at their PDSs.

These results offer other insights into our program. For example, in some PDSs it was rumored that pre-service students were being pressured into staying by university and/or school faculty who enjoyed increased pupil-to-adult ratio or who awaited student teaching district stipends. This was shown to be negligible, as External Influences was the least considered variable by both groups. These findings also underscore the importance of the relationship between pre-service teachers and their mentor teachers. Perhaps our more dedicated, serious-minded students bond more positively with their mentor teachers, or perhaps the more effective mentor teachers manage to instill more professional values in our students. Further research is needed to shed light on the causality of this relationship. In addition, there was some concern that our students, most of whom are white women living in many of the more middle class and upper middle class suburbs surrounding this city, would flee their PDSs once the required residency in a PDS was met (our PDSs were selected for their multicultural student bodies and most are in lower income areas). This, however, was not shown to be a primary reason for leaving a PDS. In fact, those students staying at their sites seemed to be following the observation of Knowles and Cole (1994): "Intent on exploring culturally different contexts in North America, many suburban pre-service teachers we know have placed themselves for an extended period in an inner-city school" (p. 97).

This study raises important placement questions for designers and policy makers of field-based teacher education programs. Allowing pre-service teachers to leave their PDSs for student teaching can be educationally and politically advantageous. Educationally, the students are exposed to more varied pre-service experiences. Politically, regional school districts that do not house PDSs can still have access to pre-service student teachers, as can non-PDS schools in districts that have a PDS. In large metropolitan areas where many school districts compete with perhaps one or two urban colleges of education for student teachers, this can be a major factor in maintaining university contacts with the many schools and districts not able to have PDSs. Having student teachers at regular school sites can also curb the potential for PDS elitism. Schools chosen as PDSs generally gain considerable advantages through PDS programs with their pre-student teaching components—advantages that are not enjoyed by other schools and districts. Urban colleges of education that concentrate their students in only a small number of designated schools may be missing the chance to reach a larger number of educators and make a more powerful impact than limited access allows.

Empowering pre-service teachers to decide their placement for themselves is one programmatic possibility. Assuming the deep familiarity that students have with their PDSs, they should be able to judge what would be best for their own professional development. This empowerment is of itself a value that we would hope to instill in our future teachers. As Knowles and Cole (1994) note:

> One of the crucial things to recognize about learning to teach and becoming a teacher is that it is not a passive affair ... preservice teacher education commands your full involvement as you reflect upon and make meaning of the various and varied experiences of practice associated with becoming qualified teachers. This kind of response implies taking a stance other than that of a passive and subservient learner. It means taking a position, despite potential institutional constraints, in which you ask yourself, "What are some ways in which I can take control of my own learning, my professional development, to insure that the activities I engage in as a preservice teacher will serve my needs as an emergent new teacher and professional?" (p. 4)

Yet, as this study indicates, if field-based programs are to include this option, strong emphasis needs to be placed on encouraging students to value the quality of their pre-service education. In setting "Model Standards For Beginning Teacher Licensing and Development," Ambach (1996) listed one standard for teaching as being "a reflective practitioner who continually evaluates the effects of his or her choices and actions on others ... and who actively seeks out opportunities to grow professionally" (p. 208).

Reflective decision making and professional constructs are included in generic courses in this PDS program. However, making clearer connections between these concepts and the pre-service teachers' concrete professional development decisions may be in order. A key to this endeavor may lie in the mentoring relationship between pre-service teachers and their mentor teachers. Finally, colleges of education may need to take a more proactive stance into the responsibility of placing those individual students who need extra help in choosing pre-service professional development paths.

Darling-Hammond (1996) has identified several developments that she feels are imperative if our children are to have teachers who meet reform standards for the National Commission on Teaching and America's Future. "If teachers are to be ready to help their students meet the new standards that are now being set for them," she notes, "teacher preparation and professional development programs must consciously examine the expectations embodied in new curriculum frameworks and assessments and understand what they imply for teaching and for learning to teach. Then they must develop effective strategies for preparing teachers to teach in these much more demanding ways" (p. 197). In developing these effective strategies, colleges of education must remember that to blindly follow what is considered best practice and policy is not reflective practice. Teacher educators need to practice reflection in order to model this professional quality for their own students and to ensure relevant and responsive teacher education programs. Altering the "all inclusive" PDS model may be the best professional development plan for some pre-service teachers, while keeping it intact might best serve others.

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CHAPTER 8

STUDYING PRE-SERVICE TEACHERS IMMERSED IN A PAIDEIA-FOCUSED PROFESSIONAL DEVELOPMENT SCHOOL EXPERIENCE

Barbara B. Levin

INTRODUCTION

In the early 1980s, Mortimer J. Adler and his colleagues published a book called *The Paideia Proposal: An Educational Manifesto* (1982) and followed it with *The Paideia Program: An Educational Syllabus* (1984). These books joined numerous calls for school reform at the end of the 20th century by offering ideas for transforming public schools in the United States. The word *paideia* is a Greek word that refers to the upbringing of the child. Adler and his colleagues chose this word because they believed that all children can learn and that all children deserve a quality education. This is the essence of the Paideia Proposal. The aims of the Paideia Proposal closely match the goals of the Professional Development School (PDS) movement, including the goals of teaching for understanding so that all students can be successful (Darling-Hammond, 1994; Holmes Group, 1990; Levine, 1992).

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Today, the original Paideia principles are still at the foundation of the work of the National Paideia Center (NPC) that supports several of the goals of the Professional Development School (PDS) movement through its collaborations and partnerships with PDSs. Those joint goals include: supporting student learning; supporting the continuing growth and professional development of experienced teachers and administrators; providing a context for school renewal and for building; and sustaining best educational practices (Holmes Group, 1990; Lieberman & Miller, 1990). The NPC staff has updated and expanded the original ideas of Adler and his colleagues in order to promote comprehensive school reform initiatives designed to create schools that hold high standards for all students and their teachers (Roberts et al., 1998, 1999). The NPC offers extended professional staff development to schools that seek to embrace these Paideia principles:

1. Equal access to quality curriculum and teaching.
2. Increased student responsibility for behavior and learning.
3. Self-governance.
4. Increased ability to discuss differences openly and respectfully.
5. Redefining the school as a learning community for children and adults.

Using teaching methods attributed to Socrates, one of the goals of the Paideia movement is to empower students to be active learners and critical thinkers. The focus of Paideia teaching strategies is on using higher-level questioning and active learning strategies to promote critical thinking that can be used when teaching curriculum content to students. There are three key instructional elements in the Paideia proposal:

1. *Didactic teaching* to acquire organized knowledge for the retention of facts and information.
2. *Coaching* for the development and improvement of intellectual skills.
3. *Socratic seminars* for the enhancement and deeper understanding of ideas, concepts, and values.

Although much been written about the Paideia proposal and principles, there is very little published research about the impact of Paideia (Gellatly, 1998) either as a school reform movement or as a professional development initiative for teachers. However, several formal evaluation studies at school and district levels indicate positive effects on school climate, student achievement, writing test scores, and on students' positive perceptions of their experience in schools where the implementation of Paideia is high (Center for Educational Research and Evaluation, 1998).

The purpose of this chapter is to describe changes in the thoughts and actions of a cohort of pre-service teachers who were involved in a Paideia-focused PDS site during their teacher education program. This chapter is based on data collected from 12 prospective elementary teachers who participated in interviews and wrote periodically about their understanding of Paideia principles across three semesters of ten-hour weekly internships and 15 weeks of full-time student teaching in an elementary PDS site. The context for this study was a PDS site where all the veteran teachers were learning about Paideia principles and implementing specific instructional strategies (seminars and coached projects) during the period when the pre-service teachers were learning to teach in their classrooms. The question of interest to me as a teacher educator, a researcher, and as the university supervisor based in this PDS site was: How do pre-service teachers understand and apply Paideia principles as they develop during their teacher education program?

RELATED RESEARCH

Research on Professional Development Schools

Many studies published during the last decade about the PDS movement describe how PDS programs are structured, how they have functioned over time, and the impact on various professionals working in PDS sites (Book, 1996; Reynolds, 2000; Teitel, 1992, 1997; Zeichner & Miller, 1997). Other studies about the PDS movement, in turn, have focused on the potential and the promise of Professional Development Schools (Levine & Trachtman, 1997; Lieberman & Miller, 1990) or the pitfalls and realities of the PDS movement (Reynolds, 2000; Teitel, 1998). There is not a great deal of research about the long-term impact of teacher preparation in the context of Professional Development Schools (Prichard & Ancess, 1999), but we do have evidence that pre-service teachers from PDS programs see themselves and are perceived by others as better prepared than pre-service teachers from more traditional teacher education programs (Reynolds, 2000; Thompson & Ross, 2000). These PDS-prepared teachers also appear to remain in teaching longer than the national average, as seen from a five-year study of graduates from one PDS program (Abdal-Haqq, 1998). As reported in Prichard and Ancess (1999), Abdal-Haqq also found that the preparation of teachers in PDS programs versus traditional programs impacts the teaching practices of pre-service teachers in the following ways: PDS-prepared teachers use more varied pedagogy, are more reflective, enter teaching with more knowledge about how schools operate, feel more confident in their knowledge and skills, experience less culture shock, feel better prepared to meet the needs of diverse student populations, and are willing to work in inner city schools when they have had PDS experiences in such settings. Unfortunately, there is still no research that directly demonstrates the link between pre-service teacher preparation in PDS sites and the academic achievement of the students at those sites (Zeichner & Miller, 1997), though logic dictates that better-prepared teachers should equate to better-prepared students (U.S. Department of Education, 2000).

Most of the studies in the PDS research literature report on PDS's as sites for varied and generic professional development of pre-service and experienced teachers. No studies were found in the published research literature that analyze the impact of a specific school reform or staff development projects such as the implementation of the Paideia principles and teaching methods described in this study. This study is also the first to be conducted with undergraduate pre-service teachers who were purposefully educated about the Paideia principles and instructional methods while they were immersed during their two-year teacher education program in a Paideia-focused Professional Development School. Therefore, this research contributes to PDS research literature, literature on professional development, and school reform literature.

Research on Professional Development Activities for Teachers

A recent evaluation of the Eisenhower Professional Development Programs (U.S. Department of Education, 2000) was conducted to determine if teachers' experiences in Eisenhower-supported professional development activities (in the context of other professional development activities) contribute to changes in teaching practice. Using national probability sample data, case studies, and a longitudinal survey of teacher change, authors of this study identified characteristics of high quality and effective professional development activities that are related to teacher change. These characteristics include three key structural and three key content (or core) features that can lead to increased knowledge, skills, and changes in teaching practice. Structural features include: (a) *type of reform* (traditional versus innovative); (b) *duration* (total number of contact hours); and (c) *collective participation* (groups of teachers participating from the same school, department, or grade level versus individual teachers from many schools). Core features have to do with the substance of the professional development experience, including the extent to which there is: (a) *active* learning (opportunities for teachers to engage in meaningful analysis of teaching and learning); (b) the degree of *coherence* (with teachers' goals and alignment with state standards and assessments); and(c) and the degree of *content focus* (on improving and deepening teachers' content knowledge).

Although this recent U.S. Department of Education study focused on federally-funded professional development initiatives in math and science, its rigor and scope offer valuable information about features of professional development that affect teacher outcomes. For example, the inclusion of longitudinal data enabled researchers "to document teaching practice before and after a professional development activity and to examine the extent to which changes in teaching practice can be attributed to participation in the professional development activity" (U.S. Department of Education, 2000, p. 8). Based on these longitudinal data, the authors found that (a) teachers in the same school appeared to have quite different professional development experiences, (b) there was a great deal of variation in the professional development experience of individual teachers from year to year, and (c) there was more consistency in the core features of teachers' professional development experiences (active learning, coherence, and content focus) than in the structural features (reform type, duration, and collective participation).

Findings from the U.S. Department of Education study are used to describe features of the Paideia PDS professional development activity that is the focus of this chapter. Furthermore, this two-year long study of what pre-service teachers learn in a Paideia-focused PDS takes advantage of longitudinal data in examining the impact of professional development activities on the participants' thoughts and actions.

Description of Paideia as a Professional Development Activity

Using the six characteristics of high quality, effective professional development described in the U.S. Department of Education (2000) study, the Paideia professional development activities experienced by the teachers in this study can be described in this way:

> *Reform type:* The Paideia professional development activities offered during this study included within-district workshops offered by the staff of the National Paideia Center. The local school district provided professional development by Paideia staff to 40 schools over three years. In this study, most of the professional development opportunities were for the faculty and staff at the PDS site were offered on-site. Therefore, this type of staff development is considered to be traditional rather than innovative.

Duration: Duration includes both total contact hours each year and the time span of the professional development activity. The total contact hours for the Paideia professional development activities during the two-year duration of this study added up to 16 hours plus an additional 4–6 hours for pre-service teachers who attended the National Paideia Conference during the second year. Additional time spent planning for and implementing Paideia seminars in the classroom averaged about 9–12 hours each semester. Time for planning and implementing coached projects ranged from 10–30 hours each semester during the second year of the project.

Collective participation: All of the professional staff, classroom teachers, and pre-service teachers participated in Paideia-focused professional development activities at the PDS site. In between formal training sessions, the site administrator asked classroom teachers to conduct at least one seminar each month in conjunction with an ongoing schoolwide commitment to character education. Many teachers planned and led at least one additional seminar each month. Pre-service teachers were required to plan and lead a minimum of three seminars each semester. Pre-service teachers also planned and taught two coached projects on their own and helped experienced teachers on their grade level jointly plan and teach at least one more coached project each semester. Collectively, pre-service and in-service teachers spent approximately 18–32 hours each semester planning and leading seminars and coached project activities.

Active learning: Opportunities for active learning by the pre-service teachers in this study included their participation in Paideia seminars during professional development sessions, practice in co-planning and co-leading seminars before planning and leading them solo, opportunities for peer coaching following seminar discussions, and guided practice in developing coached projects before planning or teaching them solo. All pre-service teachers were asked to write up their seminar plans and coached projects to turn in as a part of weekly seminar requirements. These were placed in notebooks as a resource for other teachers at the school to use.

Coherence: This feature includes alignment of professional development activities with teaching goals, previous professional development experiences, and state or district standards and curriculum. Although there was no explicit attempt to meet the first two aspects of this feature, alignment with local standards and state curriculum was encouraged and accomplished explicitly by requiring one seminar each month to correspond to the district-wide character education curriculum. Furthermore, all teachers regularly aligned their goals for seminars and coached projects to state-mandated curriculum objectives. An additional aspect of the coherence feature was discussion or sharing of the professional development activity with others. While discussion and sharing was regularly accomplished in joint planning sessions and during weekly seminars, three pre-service teachers also conducted action research projects about Paideia. Two of these prospective teachers presented the results of their action research at the National Paideia Conference during the second year of this study.

Content focus: This feature relates to the degree of emphasis the professional development activity gives to deepening (a) content knowledge, (b) the extent to which it emphasizes how students learn specific content, and (c) the extent of focus on methods of teaching content. The "content focus" of Paideia professional development activities was on using higher-level questioning and active learning strategies to promote critical thinking that can be used to teach any content to students. These strategies were applied to the content to be learned during seminars and coached projects.

METHODS

Design of this Study

This study was conducted with the goal of describing a phenomenon, and qualitative research methods were seen as appropriate for a descriptive case study. In this case, the goal of the research was to describe pre-service teachers' understanding and use of Paideia principles in the context of learning to teach in a PDS site where Paideia principles were also being learned and practiced by experienced mentor teachers who supervised pre-service teachers. While there are several theoretical frameworks for studying various aspects of teacher thinking (Richardson, 1990), the embryonic nature and unique context of this research called for methods that would allow emerging concepts to be interpreted through comparative analysis and theoretical sampling (Strauss & Corbin, 1998). Therefore, the analysis of this study employed micro-analytic methods suggested by Strauss and Corbin for studying emerging theory, including constant comparative analysis and open coding.

Context for this Study

The context for this study is an elementary school in North Carolina that has been a Professional Development School in partnership with the School of Education at The University of North Carolina at Greensboro

(UNCG) since 1994. The Department of Curriculum and Instruction, which houses the elementary and middle grades teacher education programs at UNCG, has been involved in the PDS movement since 1990. All teacher candidates in the PDS program at UNCG become members of a cohort group, termed an inquiry team, who take their methods courses together and concurrently participate in extensive field experiences in PDS partnership sites. During the last four semesters of their undergraduate program all elementary and middle grades education candidates engage in a progressively involved set of field experiences in PDS partner schools. Elementary teacher candidates begin by observing in a variety of K–5 classrooms and tutoring individual students in a PDS. They progress from planning and teaching lessons to small and large groups to concluding their program with full-time student teaching for one semester. Pre-service teachers involved in this program spend more than 1,000 hours in PDS settings by the end of the student teaching semester. They are supervised jointly by teachers in the PDS sites, termed On-Site Teacher Educators (OSTEs), and faculty from UNCG who work with a cohort group for the entire two years at the PDS sites. These faculty also lead a two-hour weekly seminar for the teacher candidates at the PDS site.

At the beginning of this study the OSTEs at this PDS site had four years of experience working with two previous cohort groups of interns and student teachers. In planning for the third cohort group the school principal and the university supervisor (author of this study) decided that their joint focus for the next two years should be on Paideia. The elementary PDS had decided to devote three years to becoming a Paideia school and contracted for several levels of training from the National Paideia Center staff, who were in the process of their headquarters to UNCG. Although the previous two cohort groups had technology integration as their focus, the opportunity to participate with the PDS faculty in learning about Paideia philosophy and teaching methods was seen by all members of the partnership as a good way to continue to develop this site into a more evolved Professional Development School. The fact that the entire professional staff and a new group of teacher candidates would experience professional development activities concurrently and be able to jointly practice implementing the Paideia principles and teaching methods together over a two-year period was in keeping with the goals of the PDS movement and the aims of the PDS program at UNCG.

Participants

Twelve pre-service teachers from one cohort group in one PDS site participated in this study. All were undergraduate elementary education majors who ranged in age from 21 to 38. Ten were traditional college-age students and two were second-career students working toward a second bachelor's degree. Ten were of European descent and two were African American.

Data Sources

The sources of data collected and analyzed in this study include: (a) semi-structured interviews based on questions derived from four categories that comprise the essential elements of a Paideia school (general characteristics, teaching strategies and techniques, curriculum, and evaluation) that were phrased so that the word "Paideia" was not mentioned. These interviews were conducted at the beginning and the end of the participants' two-year teacher education program; (b) written responses to the question: "What is Paideia?" solicited from each participant three times across two years; and (c) a variety of artifacts produced by the participants. These included: (a) lesson plans and seminar questions based on texts chosen for Paideia seminars (a minimum of 12 from each pre-service teacher), (b) two coached projects (integrated thematic units that require a final student product to be disseminated outside the classroom), (c) reflective journals (four each semester for three semesters), and (c) reflections written during the last semester of the participants' teacher education program for portfolios organized by the INTASC standards (Interstate New Teacher Assessment and Support Consortium, 1992).

Data Analysis Procedures

Interviews were transcribed after the pre-service teachers graduated from their teacher education program. These data were then reorganized so that all responses from the 12 pre-service teachers to each interview question could be analyzed one at a time using methods of constant comparative analysis and open coding (Strauss & Corbin, 1998). Summaries of these interview data are reported below as they relate to the "Essential Elements of a Paideia School." These are guidelines rather than prescriptions that can be used to measure the progress of a school implementing the Paideia principles. There are 14 essential elements divided into four areas of the Paideia movement: general characteristics, teaching strategies and instruction, curriculum, and assessment. They were derived from the Paideia principles by teams of teachers and administrators in order to operationally define the Paideia principles. For organizational purposes the results of the analysis of the interview data are reported as they relate to these four areas.

The pre-service teachers' written responses to the question, "What is Paideia?" were also analyzed by the method of constant comparative analysis to determine qualitative changes in the content and nature of responses to this question across time. These data were used to determine participants' understanding of curriculum and teaching strategies—two areas of the essential elements of a Paideia school. A variety of artifacts produced by the participants (seminar plans, coached projects, and portfolio reflections) were used to triangulate data related to curriculum and teaching strategies. Collectively, analyses of these data revealed how participants in this study understood and enacted their understanding of Paideia curriculum and instructional strategies during the two years they spent learning to teach in a Paideia-focused PDS site.

FINDINGS

Pre-service Teachers Understandings of the General Characteristics of a Paideia School

Six essential elements of a Paideia school relate to general characteristics of the Paideia movement:

1. A Paideia school is a student-centered school.
2. Students in a Paideia school learn to become self-governing, both as individuals and as a group. As much as possible, discipline should be administered through conflict resolution and student governance. Students participate in the democratic process.
3. All teachers and administrators in a Paideia school are lifelong learners.
4. A Paideia school is the center of a larger learning community.
5. A Paideia school is dedicated to the intellectual development of both children and adults.
6. A Paideia school is dedicated to the learning of *all* students; all students succeed.

Student-centeredness: Based on two questions asked in the interviews ("What do you think is the purpose of education?" and "What do you think a student-centered school would look like?"), participants in this study began with beliefs that were rather global and not well articulated. For example, initial interviews statements related that a student-centered school should have lots of student work on display, that desks should not be in rows, and that adults in the school should be focused on the students. They also said that the purpose of education is to prepare students by "giving" or "providing" them basic academic skills such as reading, writing, and math skills. The image that emerges from their initial responses to these questions is of "teachers giving" and "students receiving" an education.

At the end of two years, the participants offered better-articulated views of what a student-centered school would look like, although they still said that student work should be on display and desks should not be in rows. They also said that teachers should serve as guides and facilitators of learning, that students should work together, that students and teachers should explore and learn actively, and that students should have choices in their learning. Their concept of the purpose of education also broadened to include more than just teaching basic academic skills. At the end of two years they stated that values and social skills should also be learned and that students should continue to be learners, to contribute, and to be productive members of society.

Self governance, conflict resolution, and student governance. Besides being student-centered, another general characteristic of a Paideia school is that the students learn to become self-governing, participate in student governance, and that discipline should include conflict resolution. The question asked that related to this principle was, "How do you think children can learn to be self-disciplined and able to govern themselves?" The initial responses of participants indicated that half of the pre-service teachers believed that having students participate in developing class rules would help them become self-disciplined and able to govern themselves. However, three teacher candidates said the teacher should establish the classroom rules and only two said that giving students responsibilities, establishing clear expectations, and being consistent would help students achieve these ends. By the end of two years in the Paideia PDS, all of the teacher candidates understood that students need to help establish classroom rules, and five more participants said that giving students responsibilities would help them become more self-disciplined and better able to govern themselves. Three also mentioned the value of teachers modeling these characteristics and only one mentioned using a reward system.

Although there is a student council at this PDS site, the norm in this school is for relatively strict teacher control over student behaviors in and out of their classroom, and the student council has no responsibility for student behavior. Furthermore, although there is a very active counseling department, there is no school-wide conflict resolution or peer mediation system in place. Counselors meet with classes every week to teach a variety of social skills, including conflict resolution skills, but teachers do not integrate these lessons into their classroom management systems. Major discipline problems are handled by counselors or the principal and assistant principal, who often involve a student's family. Therefore, based on my own observations of this school over six years, I would say that this Paideia principle is not embraced in this PDS site at this time and that the implementation of the Paideia principles during this two-year study focused on the curriculum and instructional aspects of Paideia.

Teachers as life-long learners: Another essential element of Paideia schools is that all teachers and administrators are life-long learners. Based on their initial interviews, this group of pre-service teachers came into their teacher education program already predisposed to the notion that teachers must be life-long learners and thinking they would need to continue learning by attending workshops, taking classes, and continuing their formal education. They also stated that teachers learn from their students. After spending two years at a Paideia-focused PDS this group of prospective teachers continued to value life-long learning and reiterated that most of their learning comes from their students. They also reemphasized that teachers never stop learning new things. However, one addition to their thinking about life-long learning after two years was the notion of a "feedback loop" as the purpose for teachers' continual learning. After two years in this Paideia-focused PDS, pre-service teachers in this study said that the purpose of teachers' ongoing learning is to keep up with changes in the field of education and to "feed these back" to benefit their students. This predisposition to life-long learning may not be unique to this group of pre-service teachers, but it was certainly a match for the philosophy of a Paideia-focused PDS school.

School as the center of a larger learning community: The principle that a Paideia school is the center of a larger learning community was addressed by their responses to the question, "What role do you think parents and the community should play in the school?" This particular school has a reputation for having a high level of parent and community involvement. There is an active PTA, a growing after-school tutoring program staffed by volunteers, and a large Lunch Buddy program also staffed by community volunteers. Perhaps because the school is located in a small, historic town, the students take many local field trips and are involved in community-based studies. For example, guest speakers from the community are often invited, and parents and the community support several special programs and annual fund raisers. Based on their initial interview responses, this group of pre-service teachers was predisposed to believing that parental and community involvement is a positive factor for schools. However, there was a change in the tone of their responses to this question at the end of two years in this Paideia PDS site. They indicated a greater sense of urgency about the necessity of parent and community involvement in both the tone and the content of what they said about parent and community involvement in schools, as can be seen in this response from one pre-service teacher: "*Teachers need parents because they can't do everything alone. Community members should work together with parents and teachers to help connect the world outside with the classroom.*"

All students succeed: With regard to a Paideia school being dedicated to the intellectual development of children and adults, the questions that addressed this were, "What kind of teacher do you want to be?" and "How do you want your students to see/perceive you after being in your class?" The responses of the pre-service teachers in this study placed much more emphasis on the affective domain than the intellectual domain in their answers to these questions, especially when they first entered this PDS site. However, the tone of the words they use to describe what kind of teacher they want to be changed slightly after two years in the Paideia PDS. For example, the pre-service teachers' initial responses included only very positive descriptors of themselves as teachers—*fun, approachable, enjoyable, encouraging, caring, trusted, positive, patient, understanding*—indicating their desire to be liked and to make a difference for all students. Their final responses two years later were still very positive but now took on a more serious tone regarding how they wanted to be viewed as teachers—*respected, learning, effective, makes a difference, fair, disciplined, comfortable learning atmosphere, challenges students.* Respect was a word they used only at the end of their two years in this setting, indicating that they still wanted to be liked but that they now wanted to be respected as well. They wanted to have fun but learning was now a requirement. They still wanted to be perceived as positive and caring teachers but they also want their students to perform. They wanted to be perceived as an exciting and enjoyable teacher but they also wanted to effectively challenge their students to learn. Apparently, at this stage in their development it was important to these pre-service teachers that their students love them first and learn from them second. They also indicated that while they wanted to be respected and wanted learning to be fun for their students, they also wanted teaching to be fun and rewarding for themselves.

How Pre-service Teachers Understand and Use Teaching Strategies in a Paideia School

Three of the essential elements of a Paideia school fall into the area of teaching strategies and techniques:

1. All teachers in a Paideia school use Socratic seminars as a central teaching/learning device, both school-wide and integrated into the curriculum.

2. All teachers in a Paideia school use coaching techniques for the majority of their instructional program.
3. All teachers in a Paideia school use relatively little didactic teaching and that which they do use is of very high quality.

Based on examination of the artifacts collected during this study, these pre-service teachers showed steady growth in their understanding of and ability to apply and integrate specific instructional strategies, especially seminars and coached projects. By the end of two years, the implementation of Paideia teaching techniques and strategies was well developed and well integrated into the repertoire of the pre-service teachers in this Paideia-focused PDS site. Over the course of the two years pre-service teachers spent in this PDS, they became adept at selecting texts for seminar discussions (including the use of artifacts, pictures, and other nontext selections), planning questions and both pre- and post-seminar activities, and leading seminar discussions with their students. Although they struggled early on with teaching their elementary students how to behave and contribute effectively to seminar discussions, they became more adept with each seminar they led. By the end of the two years, they were planning and leading Paideia seminars during the student teaching semester, and they looked forward to them and felt confident that their students had a good learning experience as a result of their seminar discussions. Finally, indications in portfolio reflections showed that their coached projects were successful learning experiences for their students.

We also asked in the interviews, "What do you think the role of the teacher should be?" Initial responses to this question indicated that pre-service teachers originally viewed their roles as *facilitators, guides, or role models.* However, they used these words as nouns and offered no elaboration on how teachers facilitate learning or guide instruction. Participants also said that teachers wear many hats, and that teachers should "be there" for the students. In their final interviews two years later, participants still said that teachers have many roles, but, in addition to being a *guide and facilitator,* their roles should also include *mentor, listener, encourager, leader, social worker, counselor, and caregiver.* Furthermore, "guide" and "facilitate" were now used as verbs rather than as nouns. For example, they said that the teacher facilitates more than just academics in the classroom. Emphasis was placed on guiding for discovery and independent learning, although pre-service teachers still reserved a place for using direct instruction at times. The word *leader* was also added to their final list of teacher roles, although it was used only as a noun, which indicated that participants were beginning to think of teachers as leaders, although they were not sure what or how they would lead.

No data were gathered on the relative amount or quality of the participants' didactic instruction. The focus of the majority of the Paideia professional development activities was on building skill and competence in developing and leading seminars and coached projects, so this aspect of instruction was not assessed.

Pre-service Teachers Understanding of the Curriculum in a Paideia School

Three of the essential elements of a Paideia school relate to the curriculum:

1. A Paideia school stresses the same integrated core curriculum for all students and teaches students in heterogeneous groups.
2. A Paideia school allows curriculum needs to shape scheduling, and scheduling flexibility is a rule rather than an exception.
3. A Paideia school should educate all children across a wide range of intelligence, nurturing them in fine arts, movement, music, and the manual arts and give them the opportunity to explore these areas as they relate to core academic subjects.

Participants' understanding of these elements of a Paideia school is based mainly on their open-ended writing about what Paideia is. Samples were collected three times during two years. Pre-service teachers in this study began their teacher education program without any knowledge of Paideia, its principles, or what a Paideia school would be like. In their initial writing, some guessed that Paideia might mean integrating subjects or using technology in teaching, but most stated that they had absolutely no idea about what a Paideia school would be like.

By the middle of their second semester in this Paideia-focused PDS, virtually all of the pre-service teachers in this study wrote that Paideia is *a student-centered method of helping students learn by discussing the content of a text with their peers.* Paideia seminars were described as times when *students are able to express their thoughts and ideas freely, listen to other students, and respectfully agree or disagree as they discuss a given topic.* Several participants also wrote that Paideia discussions *encouraged students to think for themselves and to think critically.* At this point, they understood the Paideia curriculum in a limited way and described only the seminar aspect of a Paideia curriculum.

A year later, at the beginning of their final semester in this Paideia-focused PDS, the pre-service teacher candidates understood the goals of a Paideia curriculum much more broadly. For example, they wrote that Paideia is *an educational theory, a way of thinking, and a method of teaching and learning that encourages and coaches students* to (a) *use higher-level thinking,* (b) *think in depth rather than on the surface about topics,* (c) *learn from exploring and discovering rather than only from didactic instruction,* (d) *learn from peers,* and (e) *become more open-minded about other points of view* Although there was no mention of scheduling or of integrating a core curriculum in their definitions of Paideia, it is believed that these are not an issue in an elementary school that focuses on Paideia as much as they might be in a secondary school involved in implementing Paideia principles.

Unfortunately, the participants' understanding and application of the Paideia principle of teaching all students in heterogeneous groups (with which 10 out of 12 participants coming into this Paideia PDS agreed) changed over the course of the two years. In fact, by the end of their teacher preparation program in this PDS site, only 4 of 12 participants still believed in heterogeneous grouping without reservations. The others felt they should group students in order to meet specific needs. This apparently reflected the impact of the required implementation of guided reading groups in this PDS during their second year. In this case, new district-wide curriculum mandates for reading instruction, which ran counter to Paideia principles, apparently influenced participants' thinking as well as their actions.

Pre-service Teachers Understandings of Evaluation in a Paideia School

Two of the essential elements of a Paideia school focus on assessment and evaluation:

1. In a Paideia school, assessment of students and teachers is individualized in addition to being standardized and emphasizes portfolio and narrative assessments in conjunction with traditional grading and appraisal. Individual growth is always stressed.
2. Since the goal of schooling is to foster life-long learning in all those involved, a Paideia school is full of adults and children who view themselves as constantly growing and leaning whose self-assessment is both demanding and fluid.

The elements of assessment and evaluation showed the weakest implementation, even though the quality of understanding displayed by pre-service teachers improved during their time in the Paideia PDS. One reason for the mismatch between the participants' thoughts and actions regarding assessment may be the pressure of high-stakes testing in North Carolina and increasing pressure on teachers, including pre-service teachers, to make sure their students score well on end-of-grade (EOG) tests. These standardized tests are based on a state-mandated curriculum that emphasizes breadth over depth and surface information over in-depth understanding; thus, is antithetical to many Paideia principles. Although pre-service teachers uniformly decried the value of standardized tests for helping students learn and indicated that they would prefer using alternative and authentic methods of assessment, they felt pressure to "teach to the test" so that their PDS site would receive a high ranking on the state's accountability system. They did not want to "let down" their mentors by straying too far from the prioritized curriculum provided by the school district. They even feared spending too much time teaching the Paideia coached projects they had developed each semester because of the pressure to "cover" the curriculum. In addition, one all-day professional development session about assessment (to be lead by staff from the National Paideia Center) had to be canceled due to inclement weather. Therefore, participants in this study never received direct information about how to address assessment from the Paideia perspective.

SUMMARY AND CONCLUSIONS

This study describes how the thoughts and actions of a cohort of pre-service teachers were influenced by their experiences in a PDS where veteran teachers were also learning and implementing Paideia principles. Paideia teaching techniques and strategies, especially seminars and coached projects, were the most well understood and well developed by the pre-service teachers by the end of their two years at this PDS site. Pre-service teachers in this study learned that a Paideia school is less teacher-directed and offers students more than just a basic skills approach to learning because of the focus in a Paideia school on promoting critical thinking skills. They also saw a student-centered school as a more active, social, and value-based environment for learning. However, while participants in this study learned and applied several important aspects of the Paideia approach, several other essential elements of a Paideia school did not seem to emerge, especially in the areas of heterogeneous grouping and assessment.

Potential explanations for the disjunctions between pre-service teachers' thoughts and actions seen in this study include practical, political, and theoretical issues. From a practical perspective, these pre-service teachers were constrained by the amount of time they had to implement their developing conceptions of Paideia principles. Even though they spent ten hours each week for three semesters plus a semester of full-time student teaching in this Paideia-focused PDS site, they were learning to manage a classroom full of diverse students and teach all subjects. Paideia seminars usually occurred once every two weeks and only one coached project was implemented each semester. Thus, there was a gradual implementation of these teaching strategies into a state-mandated curriculum (the North Carolina Standard Course of Study). There was enough practice to familiarize them with Paideia instructional strategies but only enough exposure to have them become comfortable with some of the Paideia principles at a superficial level. As with any new learning, what was best understood and incorporated were elements that matched their prior beliefs: (a) the importance of being student-centered; (b) parent and community involvement; (c) using active learning; and (d) the importance of life-long learning. Elements that were least understood and were poorly implemented were those to which they had the least exposure including: student self-governance and self-government; conflict resolution; heterogeneous grouping; and alternative forms of assessment. Some of these were also political issues in this school and district and related to the political context where high-stakes testing and student accountability overshadowed what many feel are best practices. These pre-service teachers (and their mentors as well) were not in a position to challenge the current political context that includes district and state mandates for extensive preparation for standardized tests. From a theoretical perspective with regard to teacher development, these pre-service teachers were just beginning to focus more on their students' learning needs than their own toward the end of their two-years in this PDS program. While they understood the value and necessity of life-long learning for themselves, they did not see how this might translate into providing opportunities for either self-governance or conflict resolution for students who will find themselves in heterogeneous groups throughout their lives. Furthermore, some of the norms of the PDS site did not support some of these elements of a Paideia school. These were using a variety of alternative, performance-based assessments, including portfolios and narrative assessments and student self-governance or conflict resolution.

Implications for Teacher Education in Professional Development Schools

The value for pre-service teachers of engaging in professional development activities with experienced teachers in a PDS setting is very high if we believe that schools should be places where both students and adults are learners. The results of this study suggest pre-service teachers who learn to teach in PDS settings can receive added value from professional development experiences in which they engage with their more experienced colleagues, especially if the professional development matches the three structural and three core principles of effective professional development described in the recent U.S. Department of Education study (2000) and meets the goals of Professional Development Schools (i.e., supporting student learning; preparing new teachers and inducting them into the teaching profession; supporting the continuing growth and professional development of experienced teachers, university faculty, and administrators; providing a context for school renewal and for building and sustaining best educational practices; and providing clinical settings for research on teaching and learning) (Holmes Group, 1990; Lieberman & Miller, 1990). In this case, both veteran and pre-service teacher candidates immersed in a Paideia-focused PDS had the opportunity to further the goals of the PDS movement that matched many of the goals of the Paideia proposal.

Future Research in PDS settings

This study is limited by the fact that it looks at only one small cohort of pre-service teachers who are learning about and attempting to implement Paideia principles during their pre-service teacher education program in a PDS setting. Following these pre-service teachers into their first few years of teaching to see whether they continue to apply Paideia principles in their own classrooms would be an ideal extension of this study. It would be especially interesting to compare teachers who find themselves in other Paideia-focused schools and those who take jobs in other districts where teachers have not received professional development experiences related to Paideia principles. The influence of school and school district contexts versus the influence of Paideia as a philosophy and a set of teaching/learning principles would be worth exploring further, given the political climate in education today. In addition, any study of the impact of professional development experiences should include measures of the impact of the reform on student learning. This study would be much stronger had researchers found a way to measure the impact on student learning when both pre-service and in-service teachers are working together to implement the Paideia principles and instructional strategies. Perhaps the impact would be more immediate or stronger because both experienced and novice teachers are working together to implement essential elements of a Paideia school, but this could only be determined with more careful research.

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CHAPTER 9

DEVELOPING REFLECTIVE TEACHERS IN CONTEXT

The Impact of Professional Development Schools

Norene Vail Lowery

ABSTRACT

There is a definite need for the preparation of teachers to be re-evaluated in order to coincide with the efforts of improving student learning and instruction. As more is revealed about human learning and knowledge, changes in educational structures, approaches, and instruction must also occur. Professional Development School (PDS) experiences have the power to influence the confidence and competence of pre-service teachers. Reflection is a crucial component that must be incorporated into every new and existing teacher preparation program. Reflective learning contexts of the Professional Development School offers a strong alternative to traditional methods instruction. Videotape reflection is one instructional strategy that may be easily employed to encourage teacher reflection in methods courses. In this case study, pre-service teachers revealed the impact of video reflection within a PDS context. The PDS, the situated learning context, the videotaped teaching sessions, and reflection created a collaborative interaction rich in the components for growth in teacher knowledge.

INTRODUCTION

Mathematics and science groups (National Council of Teachers of Mathematics [NCTM], 1989, 1991, 1995, 2000; National Research Council [NRC], 1996) see teachers as the essential figures for implementing written national standards. These standards promote learning environments that encourage *meaningful* learning rather than rote learning and create a different view of teaching and learning. In their view, teachers are the essential figures for implementation of the ideas written in their standards; however, new ways of teaching and learning demand new ways of educating teachers.

Although methods courses are a traditional part of the experience for undergraduate pre-service teachers, there is sometimes little to substantiate the value of these courses and the ways in which they have traditionally been taught (Adams & Tillotson, 1995; Zeichner, 1988). An increasing number of traditional methods courses in teacher education programs have been found to be inadequate for these reform recommendations.

The need for change in teacher preparation has encouraged field-based learning environments such as Professional Development Schools. Here, classroom students, pre-service teachers, and in-service teachers are all a part of the learning community (Feiman-Nemser & Buchmann, 1986). A major goal of the PDS is developing teachers who are reflective about teaching and learning within a school context (Valli, 1992). Reflective teaching involves the development of strategies and techniques used within a changing learning environment and teaching situation (Schön, 1987). Reflection is defined as what a teacher does when he or she looks back at both the teaching and learning that has occurred, then reconstructs, reenacts, recaptures, and makes sense of the events, emotions, and accomplishments (Wilson, Shulman, & Richert, 1987). These "reflective conversations" are seen as sources to aid in better understanding and increasing better decision-making as an educator. The concept of Professional Development Schools offers a context rich in classroom experiences where pre-service teachers and in-service teachers interact and where reflection can develop.

Learning to teach is a complicated effort, so it is important to consider carefully many imperative components that must be present in the best of circumstances. Traditional approaches used in teacher preparation programs have been inadequate in preparing pre-service teachers for the classroom. Therefore, studies that consider the interaction of components involved in learning how to teach provide valid information toward improving the preparation of teachers. This study considers the effect of the context and of a strategic instructional strategy of one PDS partnership teacher preparation program—with particular focus upon methods coursework. An investigation of the Professional Development School and the implementation of teacher reflection will be discussed. Reflection in teacher education programs within a Professional Development School may provide a missing link in the development of these schemata for pre-service teachers in learning how to teach, especially in certain content areas.

This paper examines the learning of pre-service teachers when the interaction of (a) strategies of methods courses plus, (b) placement in a Professional Development School (PDS), and (c) a focus on reflective teaching are joined together. A developmental progression through reflective stages creates a framework for interpreting differences between expert and novice teachers. This involves schema, pedagogical reasoning and pedagogical content knowledge—all concepts that are central to the characterization of teaching as a complex, cognitive skill. Pedagogical reasoning is the process of transforming subject matter knowledge into forms that are pedagogically powerful and yet sensitive to learners (Shulman, 1987). Expert teachers who are masters at this depend on reflection. Their form of thinking in these ways is unique to the profession of teaching, and it is relatively underdeveloped in novice teachers (Feiman-Nemser & Buchmann, 1986, 1987). Pedagogical content knowledge is also specific to the teaching profession. This knowledge consists of many ways in which to represent specific subject matter that are learner appropriate. A schema for pedagogical content knowledge also seems to be virtually nonexistent in novices' knowledge systems. Developing these knowledge structures and learning pedagogical reasoning skills are major components of learning to teach (Feiman-Nemser & Buchmann, 1986, 1987; Wilson, Shulman, & Richert, 1987). Because Professional Development Schools provide authentic contexts for learning how to teach, pre-service teachers benefit from interactions with in-service teachers where classroom teachers are able to model these concepts and reflect on good teaching practices and strategies with pre-service teachers. Authentic contexts may be crucial in furthering the development of teacher knowledge (Cochran, DeRuiter, & King, 1993) for novices.

TEACHER KNOWLEDGE AND REFLECTION

Learning and competence are gained in practice and reflection before, during, and after an action or performance (Hoberman & Mailick, 1994). Many studies verify the importance of reflection (Calderhead, 1987; Clark & Yinger, 1987; Wilson et al., 1987). Some propositions derived from this research include:

1. Not only can we think about things we do, we can think about doing something while doing it.

2. Reflection in action draws upon implicit and situation-grounded cognitions.
3. Professional problem solving draws upon a repertoire of practice knowledge that generates exemplars.
4. Professional problem-solving often proceeds by reframing the initial problem.

From this research, the importance of reflection in teaching is strengthened. Even though the role of reflection in teaching is considered important, reflective action in pre-service and in-service teachers is either inhibited by isolation of teachers or by the structure of courses and schools (Feiman-Nemser & Buchmann, 1985; Jackson, 1968; Lortie, 1975; Nisbett & Wilson, 1977).

However, reflection within a Professional Development School environment should surely be different. Within this school environment, the experts as a whole (in-service teachers) along with university faculty partners are readily available to interact with pre-service teachers, opening the door to deeper inquiries about their educational practices. Fenstermacher (1994) has suggested that the reform needed and wanted in teacher preparation requires a tremendous effort in understanding teaching and teacher learning. Other advocates in the renovation of teacher preparation programs appear to confirm this and suggest that such new programs understand the conditions that promote reflection in beginning teachers. Research findings confirm that the likelihood of long-term success for many novice teachers is hindered by the absence of expert guidance, support, and opportunities to reflect (Tisher, 1978; Veenman, 1984).

Learning to teach also involves the acquisition of knowledge systems or *schemata* and other cognitive skills (Brown & Borko, 1992). Research suggests a framework of expertise that indicates experts have elaborate *schemata*. It seems that the difference in any area of human activity between experts and novices has been determined to be the ability to learn from reflection *on* experience (Berliner, 1987a). Experts and novices, it was found, differ in the way they represent problems (Chi, Feltovich, & Glaser, 1981) and in the strategies they employ to solve them (Fredericksen, 1984). Experts have a more developed network of knowledge for understanding practice and knowledge and for understanding children. Experts are also more selective in their use of information during planning and interactive teaching, make greater use of instructional and management routines, and notice different aspects of the classroom (Berliner, 1987b; Borko & Livingston, 1989; Borko & Shavelson, 1990; Carter, Cushing, Sabers, Stein, & Berliner, 1988; Leinhardt & Greeno, 1986). Thus, findings suggest that expert teachers display more pedagogical knowledge, content knowledge, and pedagogical content knowledge than do novices (Chi et al., 1981; Larkin, McDermott, Sikon, & Simon, 1980). The importance of reflection in this research implies changes in policy and practice in teacher education programs to better prepare pre-service teachers for the classroom (Calderhead, 1987).

LEARNING IN SOCIAL CONTEXT

The social context for learning is believed to have a crucial impact on the quality and depth of knowledge construction. Cochran et al. (1993) imply that teaching understandings and abilities are developed and enhanced if they are acquired in authentic contexts. These researchers suggest that learning to teach is content-, student-, and situation-specific, and they consider learning to teach in context as a direct application of constructivism. The importance of the social context of learning within a group interaction is a major aspect of a socially-situated paradigm that focuses on the meaning of the group (Kirshner & Whitson, 1997). This model considers the individual and the social environment to be linked. Situated learning assumes learning to be socially situated and/or based on motivated learning.

Brown, Collins, and Duguid (1989) believe that learning situations should be: (a) embedded in authentic and relevant problem situations; (b) that all knowledge is situated; and, (c) that learning may be seen as a result of activity, content, and culture in which it is developed. Situated learning is learning that occurs in a particular context and is a result of that context experience.

> Learning and cognition, it is now possible to argue, are fundamentally situated. . . . We suggest that, by ignoring the situated nature of cognition, education defeats its own goal of providing usable, robust knowledge. (Brown et al., 1989, p. 32)

Knowledge construction and its transferability are affected by the way in which it is retrieved, interpreted, and used (Brown et al., 1989). Yet, there is little research to explain the relationship of acquisition and transfer of knowledge. Currently, there is a lack of transfer of teaching behaviors from methods courses to teaching situations by pre-service teachers (Adams & Tillotson, 1995; Zeichner, 1988). This could well be due to the traditional methods course experience failing to be representative of authentic learning and teaching experiences in the classroom environment and by overlooking the value of reflection. The role of situated knowledge has the potential to affect the education of pre-service teachers.

However, learning to teach within a Professional Development School context offers these authentic experiences early on (prior even to student teaching) with ample opportunities for reflection that could promote further growth in teacher knowledge. Within this context, pre-service teachers may be seen as participants in the role of apprentice. Apprenticeship suggests methods where the teacher promotes learning, supports pre-service teachers' attempts, and empowers them to continue independently. Indeed, cognitive apprenticeship has components of problem solving, multiple roles, confronting ineffective strategies and misconceptions, and promoting collaboration (Collins, Brown, & Newman, 1989). By advocating the use of the social and physical context, cognitive apprenticeship grounds learning in activity. To learn to use teaching tools as teachers do, pre-service teachers (like an apprentice) must enter that classroom and school (like a community and its culture) and participate in authentic activities with these tools. This is not possible in a textbook-based methods instruction course. Learning is derived from and defined by the participation in the "community of practice" (Resnick, 1988). Authentic activities are the daily practices of the culture, and cognitive apprenticeship attempts to enculturate students into authentic practice through activity and social interaction. Apprenticeship and coaching begin by providing modeling and scaffolding in authentic activity. Thus, as self-confidence and control grow, movement to a more autonomous phase of collaborative learning occurs. Here, apprentices begin to participate consciously in the culture, and collaboration leads to articulation of strategies to be discussed and reflected. This, in turn, fosters further development of conceptual knowledge (Brown et al., 1989). The social context of learning is a crucial element in the construction of knowledge and cognitive growth through social interaction (Dewey, 1902; Piaget, 1970; Vygotsky, 1978). There is no better place for this to happen than with "real" teachers and "real" students within "real" classrooms. Within a PDS, all players have a heightened awareness of the elements the university partners desire for pre-service teachers to experience (such as modeling "best practices" and demonstrating reflective teaching). Learning how to teach is enhanced.

THE PROFESSIONAL DEVELOPMENT SCHOOL (PDS)

Professional Development Schools provide effective models of teacher education and professional development by serving as centers of practice, builders of knowledge, and vehicles for communicating professional understandings among teacher educators, novices and veteran teachers (Darling-Hammond, 1994). In a PDS, stakeholders collaborate to advance development and meaning in teaching. Without the assistance of expert guidance, support and reflective opportunities, novice teachers' initial efforts in the classroom may be hindered and become detrimental to long-term teaching (Veenman, 1984). A construct of the PDS is to create an experience that offers opportunity to develop *effective* teachers. This is deemed possible through the interactive supportive system involving school personnel, university personnel, and the pre-service teacher. The PDS is designed to do what the traditional "lab school" was not able to do—involve pre-service teachers in the depth of complexities of classroom life (Holmes Group, 1990).

> All of the PDSs . . . have had to affirm, negotiate, and redefine two different kinds of knowledge: the formal, research-based knowledge that is the basis for much university teacher education and the less formal, context-based knowledge that is the basis for much practice in schools (Darling-Hammond, 1994, p. 14)

However, there has been a lack of justifiable research to confirm positive results in the implementation of changes in teacher education. There are problems with funding and organization and even difficulty in common terminology as to what constitutes a PDS (Abdul-Haqq, 1992; Book, 1996; Rushcamp & Roehler, 1992; Winitzky, Stoddart, & O'Keefe, 1992). However, three concepts are considered foundational for the PDS movement. These are:

> 1. To improve the quality of instruction for K–12 students, the preparation of prospective teachers, and the continuing education of professional educators;
> 2. To provide a research base that informs the teaching profession; and,
> 3. To encourage the school to undergo a structural reform that allows for the collaboration between school and university faculty and supports changes in teaching and learning. (Book, 1996, p. 195)

Goodlad's (1990) study of twenty-nine universities found that the vision of teaching presented to pre-service teachers through education schools at the university level differs greatly from the methods that are utilized by teachers in the classroom or that are mandated by policy. This validates the imperative need for change, progress, and reform as represented in the PDS efforts. Efforts to date are extensive and impressive. However, the strength of reformation lies in a simultaneously concerted effort that encompasses the preparation of teachers and the continuing education of in-service teachers. Professional Development School experiences offer growth in teacher knowledge in authentic context.

LEARNING STRATEGIES

Accepted research now indicates that learning occurs from construction of knowledge. This exemplifies the constructivist perspective (Romberg & Carpenter, 1986). This viewpoint of learning purports that knowledge of the world is constructed by perceptions and experiences based in prior knowledge or experience. Constructing knowledge requires reflective thought in which prior knowledge will influence that construction. Constructivism, thus viewed as a reflective tool, empowers teachers and enables them to design appropriate learning activities that address the needs of learners.

Tobin, Tippins and Gallard (1994) tell us that constructivism tends to sophisticate thinking about educational problems (reflection), leading to unique questions that open the door to new recognitions. The social context in which learning occurs is believed to have a crucial impact on the quality and depth of knowledge construction. The Professional Development School design encourages learning in context that supports cognitive apprenticeship by enabling students to acquire, develop, and use cognitive tools in authentic activities. The use of reflection in combination with videotaping offers great potential for revealing many components of learning how to teach (Atkins, 1997; Collier, 1997; Herrington & Oliver, 1998). Certainly, prior studies have documented the successful implementation of videotaping teaching sessions that have resulted in insight into pre-service teachers' ability to plan, implement, and reflect (Bischoff, Watford, & Hatch, 1999). For example, videotape reflection has been seen to offer opportunities for pre-service teachers to reexamine their teaching beliefs and practices (Wedman, Espinosa, & Laffey, 1999) and offer insight into teaching as teachers reflect on the responses of classroom students to that teaching (Towers, 1998). Field-based teacher preparation programs that have implemented the use of reflective videotaping strategies report that pre-service teachers consider the efforts as revealing and worthwhile in terms of learning how to teach (Friel & Carboni, 1997; Wedman et al., 1999; Towers, 1998). Implications from such research advocate guided self- and social reflection within field placements (Collier, 1997).

This study considers the social context of a Professional Development School that provides authentic learning experiences within a methods course for learning how to teach elementary mathematics and science. The use of videotaping teaching sessions of pre-service teachers provides the focus of developing the power of reflection and furthers the growth of teacher knowledge. These questions guided the study: How do pre-service teachers construct teacher knowledge through reflecting on videotaping teaching sessions in a Professional Development School, and what is the extent of that knowledge construction?

THE METHODOLOGY

Examining the role of reflection involved in learning how to teach can make significant contributions in strengthening the preparation of teachers by complementing a growing knowledge base for teaching. Specifically, this inquiry examines the effect of videotaped teaching sessions as a source of teacher reflection by pre-service teachers in a methods course within a Professional Development School context. Qualitative methodology was implemented and facilitated the discovery of the utility of video reflection by pre-service teachers. A case study was chosen for this context-specific inquiry (Lincoln & Guba, 1985). Data collection spanned four weeks during a semester session, and the use of multiple data sources and methods triangulated collected information. Context-rich materials provided background meaning to support data analysis and interpretations. Norms of qualitative methodology were observed that facilitated extent of knowledge construction by pre-service teachers. Thus, this social context of school provided the opportunity to examine how pre-service teachers collectively and individually construct and reconstruct meaning.

Respondents (at a large urban university) were twenty-one elementary education majors of junior and senior classification enrolled in a required methods course that fulfills state certification for elementary mathematics and science instruction. The site for this content-focused Professional Development School was located on a middle-class, suburban public elementary school campus (K–5) (with 338 students) in a central Texas school district. This campus was state-rated with a student population as high performing and exemplary. Teaching faculty consisted of three or four teachers at each grade level.

Pre-service teachers spent four and a half days each week during their PDS semester at the site in active observations, beginning teaching and other coursework. This experience, however, was content-specific in that this specific methods courses involved only mathematics and science instruction. This allowed a more in-depth experience in these content areas for the pre-service teachers.

Within this context, pre-service teachers experienced a standards-based (NCTM, 1989, 1991, 1995, 2000; NRC, 1996), rather than textbook-based, mathematics and science methods course with immediate access to field experiences. National standards and state and local curriculum policies determined the grade-level content that became the foundation of content study in the methods course. To become informed of national and state standards and to become reflective practitioners were course goals. A constructivist approach to learning and teaching was modeled, observed, discussed, and implemented along with authentic assessment, and a great variety of new teaching strategies were introduced. Site-specific tasks included: (a) teaching and tutoring mathematics and science to elementary students, (b) designing instructional materials, and (c) creating Family Involvement Nights. Field experiences of observation and teaching were negotiated. University instructors performed advisory roles for pre-service teachers who participated in teaching and tutoring mathematics and science lessons to elementary students. Various course tasks included: (a) evaluation, synthesis, and implementation of teaching strategies and national standards; (b) participation in inquiry and discovery activities; (c) participation in professional development activities with in-service teachers; and, (d) the use of videotape reflection. The focus of this inquiry was the use of videotaped reflection. The methods course included topic contents and methods instruction in mathematics, science, and the integration of mathematics and science. Classroom lessons were designed and taught by pre-service cohorts under the guidance of the in-service teachers and course instructors. Weekly class meetings were divided into direct methods course experiences and field experiences. A collaborative environment was created by the attributes of the setting, the methods course, and the personnel.

DATA COLLECTION AND ANALYSIS

Groups of two, three, and/or four pre-service teachers were videotaped while teaching mathematics or science to elementary students in the context of a Professional Development School. Descriptive rules were devised for the stages of data analysis that rendered each internally consistent. Inclusion and exclusion decisions were recorded in the researcher's reflective journal. This method allowed for an ongoing analysis that enabled determination of source exhaustion, category saturation, emergence of regularities, and overextension that indicated a stop decision in collecting and processing data (Lincoln & Guba, 1985). Peer debriefing was utilized throughout each stage of analysis. Individually, pre-service teachers responded to the course tasks of analyzing, evaluating, and synthesizing this experience. Required reflective papers were course products and also used as data sources, and pre-service teachers were asked to respond specifically to task questions and to use reflection regarding the viewing of their own videotaped lesson. Peer debriefing of self-reflection was conducted where cohort members debriefed and reflected in small groups. Researcher observations and journaling triangulated and documented the reports of learning by the pre-service teachers. Data were processed following the suggested steps of synthesis of a constant comparative method adapted from Glaser and Strauss (1967). The first stage of analysis involved unitizing the data. Two methods were used: note cards and note strips (computer generated); and computer-unit segmentation of data (Erlandson, Skipper, & Allen, 1993). Each unit coded the source, the type of respondent/informant, the episode, and other data that emerged. Sorting was performed during the second stage of analysis using the units of data (identified areas of learning) to bring together provisional categories that were related (inclusion was determined based on the similarity of at least 10% of responses). The third stage of analysis sorted learning components into learning categories. Evidence of teacher knowledge construction by pre-service teachers in this setting emerged from these analyses. In addition, evidence of the value and extents of value in the use of video reflection were apparent. Knowledge of self, of the learner, and of the task (content) were prevalent.

RESULTS

The ability to watch oneself teach and to reflect on that teaching proved to be a very valuable interaction for pre-service teachers. Benefits from the videotape reflection reported increases in the confidence level, autonomy, and self-efficacy in pre-service teachers as well as growth in teacher knowledge. The collaborative element in teaching in small groups allowed for aspects of coaching to be incorporated. Instructional strategies were observed, analyzed, and evaluated for effectiveness. The importance of timing in lesson planning, in lesson execution, and in monitoring student groups were factors that emerged in the growth of teacher knowledge and pedagogical content knowledge (PCK). As pre-service teachers watched and reflected, they were able to see the need for effective questioning techniques that include higher order, open-ended questions and the value of elaboration and extension in classroom discourse. In their responses to this interaction, there was much evidence that supported the growth of PCK in teaching mathematics and science lessons. Many reports were made that indicated that PCK was developing as the pre-service teachers adapted, adjusted, and extended these same lessons when they taught other elementary students. The learning reported here originates from all data sources as described earlier.

Other elements and excerpts were selected to be the most revealing and indicative of common responses made by the pre-service teachers in the data. Pre-service teachers unanimously acclaimed the use of the video reflection interaction as of great value in learning how to improve teaching. Classroom management techniques were evaluated and discussed for improvement. Missed opportunities, students' questions, and behavior problems were observed on tape that had been overlooked during the teaching.

> A couple of things I gained from the video were finding out which method works with behavior problems. . . . In the video I actually walked over to a student and quietly told him to be quiet. I think this works better because the student behaved the rest of the lesson. The other student who was called down out loud continued to be loud . . . I need to ask more questions concerning their comprehension of the lesson. I have a lot to learn about teaching and this video is the first step in helping me become a better teacher.

Pre-service teachers were able to judge the grade level appropriateness, assess student abilities, evaluate the use of motivational techniques, and value the use of time management in teaching. It was suggested from the responses of pre-service teachers that videotaping teaching lessons should be done on a regular basis within their own classrooms to ensure the opportunity for continual professional instructional growth.

> I am more aware of my strengths and weakness as a teacher. I can plan ways to change certain things and improve others in order to become a better teacher.
>
> (The video reflection) ... helped me to see how I interact with the students and how they interact with me. Being able to see oneself: body language, facial expressions, and other mannerisms were observed and reviewed for effectiveness and evaluation. Talking slower and using more expression (being more animated) is important.
>
> The video allows you to see aspects of the classroom that as a teacher you are unable to see while in action.

There were many reports of self-satisfaction and pride as effective lessons that were taught and reviewed. Many pre-service teachers expressed much pride and professionalism in this interaction.

> It was good to watch the video and see how the students learn and interact with each other while participating in a hands-on activity. I saw how I performed as a teacher and felt good about how I handled the students' questions, and I think I presented myself in a professional manner.

Some pre-service teachers reported being very nervous during that teaching, yet through watching the video, realized that they presented a much, calmer and more confident professional demeanor in the classroom.

> When I was watching the video, I found myself thinking, "I should say or do this," then I would do it in the video. I was pleased when that happened because I knew that I had done a good job. Sometimes when you are actually doing something, it's hard to tell if you are doing it well. By having the video, I was able to tell that I really did do a good job.

The impact of a constructivist instructional approach to teaching was also prevalent in the reports of the pre-service teachers.

> As I watched this video again for the third time, I realized something I hadn't noticed before. The whole time the students were working, there was a constant murmur in the room. I always thought that I wanted my classroom to be completely quiet, with no one making noise except those who were supposed to be. I realized that everyone should be talking in this situation! I know this is a science activity and students have to communicate to do, but I had always thought they could do it with less talking. I liked the noise! When I think back to that day, I don't even remember the noise. When I listen to what the students are saying, they are actually engaged in learning and doing what they should be doing. Thinking about the questions they asked and noticing the way the students were talking to each other made me realize that maybe the students were actually learning something instead of just going through the motions. I'm glad that we did this video reflection. I learned something about my teaching.

The pre-service teachers teaching in this PDS have expressed in their own words the importance of using reflective teaching in context. Professional Development School experiences offer pre-service teachers growth of this nature even prior to the student teacher experience. This is a result of: (1) cohort trust (when a number of student teachers are placed together and work as peer coaches), (2) teacher modeling of reflection, and (3) faculty concentration on new content methodology modeled in authentic situations. The PDS context provides pre-service teachers invaluable learning experiences that are imperative for successful student teaching and classroom teaching experiences. Numerous reports from pre-service teachers confirm that reflective teaching is a valuable, permanent tool for ensuring successful classroom practices. The implementation of reflective teaching within this context using videotaping has had a positive affect on the learning experiences of these pre-service teachers. Data confirm that teacher knowledge was acquired.

SUMMARY

Models of traditional and non-traditional approaches to learning how to teach are currently in practice in various teacher preparation programs throughout the country. The knowledge base for teaching resulting from traditional research paradigms has established frameworks on which teacher education programs have been built, and these traditional findings have promoted generally accepted beliefs concerning pedagogy and content. However, traditional modes of research and their context are under scrutiny, as changes over time become major factors in building a knowledge base for teaching.

Early teacher preparation programs have followed accepted beliefs originating from traditional research methodologies. As research findings help to change beliefs concerning teaching, typically, teacher preparation programs evolved with those emerging changes. Lecture, question-answer techniques, blank slate viewpoints have waned, yielding to the emergence of the importance of human cognition. Yet, as more is learned and questioned about teaching, needs arise for more investigations into the many complexities involved in learning to teach. Traditional instructional strategies and thinking (products of traditional research) have not sufficiently addressed many of the needs of both the teacher and the learner. Traditional settings have been campus-based instruction with no field experiences, and these traditional courses have had little impact in preparing pre-service teachers for real classrooms (Adams & Tillotson, 1995; Zeichner, 1988).

Recent reform efforts in mathematics education and science education confirm a need for alternative methods of teacher preparation as knowledge about how humans learn dictates a change in the views of teaching and learning. Current efforts are being made to address these concerns. One such effort to improve teacher preparation experiences, in concert with, developing reflective practitioners, is underway in Texas. These efforts include a professional development standard for teacher certification that emphasizes reflection and a mandate for field-based experiences for pre-service teachers. Efforts such as these are commendable and may prove to be a most effective approach to learning how to teach.

Although there are still many variations of traditional methods courses and little evidence to support their usefulness, some researchers still contend that professional courses can influence pre-service teachers' attitudes and beliefs (Ball, 1988; Lamme & Ross, 1981; McCaleb, 1979). Teachers have identified actual classroom experience as the major source of learning (Adams & Krockover, 1997; Grossman & Richert, 1988; Lanier & Little, 1986; Lortie, 1975). Within the context of classroom experiences in PDSs, teachers should be allowed and encouraged to: (a) determine the value of strategies and representations that are successful for subject matter instruction, (b) determine students' misconceptions and prior knowledge, and (c) develop curricular knowledge through reflection. Videotape reflection is one instructional strategy that may be easily employed to encourage teacher reflection in methods courses. In this case study, pre-service teachers revealed the impact of video reflection within a Professional Development School context.

Along with implementing a constructivist approach, the situated context of learning, content, and reflection are the most critical components for teacher preparation programs. Professional Development School experiences have the power to influence the confidence and competence of preservice teachers, partly due to the reciprocal effect in learning in this PDS context (Feiman-Nemser & Buchmann, 1986). As in-service teachers act as mentors, they, too, are developing depth in teacher knowledge, reflection, and strategies. In all respects, in-service teachers benefit from the Professional Development School experience, too. Finally, university PDS faculty are reflecting upon implementation of new methods and standards.

The call for changes in pedagogy and for reform of teacher preparation is based upon the contemporary research on cognition, development, and subject-specific pedagogy (Anderson, 1984; Brown et al., 1989; Case & Bereiter, 1984; Piaget, 1970; Schoenfeld, 1987; Wilson et al., 1987; Holmes Group, 1986, 1990). The demands and expectations of today's reformers are high. They support, wholeheartedly, the reevaluation of teacher preparation in order to coincide with the efforts of improving student learning and instruction. As more is revealed about human learning and knowledge, many changes must occur in educational structures, approaches, and instruction. Reflection is a crucial component that must be incorporated into every new and existing teacher preparation program. Reflective learning contexts of the Professional Development School offer a strong alternative to traditional methods instruction with the potential to create more confident and competent teachers in the classroom. In this particular case study, the Professional Development School, the situated learning context, the videotaped teaching sessions, and reflection created an collaborative interaction rich in the components for growth in teacher knowledge.

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CHAPTER 10

INTERPROFESSIONAL TRAINING AND SERVICE PROVISION IN A PROFESSIONAL DEVELOPMENT SCHOOL[1]

John P. Galassi, John Brantley, Gary Shaffer, and Barbara Myers

ABSTRACT

A four-year interprofessional collaboration between three university professional preparation programs—school counseling, school psychology and school social work—and a rural school district is described. The collaboration involved interprofessional training and service provision in a Professional Development School context. This collaborative focused on low-literacy first and second grade students and included initiatives at the individual student, small group, and classroom levels as well as at the school and school district level. Services were provided by a team of interns from the three university programs who were jointly supervised by faculty from those programs as well as by their professional colleagues in the field. Students participated in a variety of interdisciplinary training initiatives. These initiatives included: (a) multidisciplinary case conferences with both their field and university supervisors using video conferencing, (b) instruction in a risk assessment and resource matching procedure, and (c) the development and implementation of an approach to determine support service staffing needs in an individual school as well as for the school district as a whole. This article describes these initiatives, reports on their impact on the trainees, discusses barriers to professional training, and considers implications for new directions in practice by student support service professionals.

INTRODUCTION

In recent years, rapid changes in our society have presented increased challenges to the healthy development of young people. What has been referred to as the new morbidities (Walsh, Howard, & Buckley, 1999)—poor nutrition, unsafe sex, drug and alcohol abuse, familial and community violence, teenage pregnancy and parenting, lack of job skills, inadequate access to health care, and homelessness—have made the tasks of growing up and educating young people far more difficult than ever before. Teachers, student support personnel, and other professionals working in the schools increasingly find that they cannot meet the educational and related needs of children on their own and that they need to call upon one another and to work together if they hope to be successful.

Effective practice demands competence beyond the specialized skills of a profession or discipline. As a result, a number of professions including school counseling (Bemak, 2000; Porter, Epp, & Bryant, 2000), psychology, especially the counseling and school specialties, (APA, 1994; Brabeck, Walsh, Kenny, & Comilang, 1997; Talley & Short, 1995), social work (Corrigan & Bishop, 1997; Gibelman, 1993; Jones & Zoltnik, 1998; Zlotnik et al., 1998), and teacher education (Corrigan, 1994) have begun to emphasize the importance of interprofessional collaboration and the development of integrated services for children and families. Interprofessional collaboration involves "heretofore separate professionals endeavoring to work as teams . . . attempting to build 'seamless' education, health, and social services" (called service integration) (Lawson & Hooper-Briar, 1994, p. 5).

To be able to function effectively from an integrative and collaborative framework requires familiarity and knowledge of the workings of other professions (Luongo, 2000). Although this knowledge can certainly be developed on the job, it is advantageous for training and collaboration to begin at the pre-service level.

Statements about the advantages of collaborative efforts have been promulgated for over a decade by student support service professional associations. For example, a position statement supporting interdisciplinary efforts was prepared by the American Association for Counseling and Development, American School Counselor Association, National Association of School Psychologists, and the National Association of Social Workers (AACD, 1990). Recognizing the importance of this issue to the future of teaching, the Association of Teacher Education in 1993 established a Commission on Leadership in Interprofessional Education to Create Collaborative Education, Health, and Human Services Systems. In addition, some initial interprofessional educational efforts are currently under way (Brandon & Meuter, 1995; Lawson & Hooper-Briar, 1994), and a few reports on the activities and results of such endeavors have appeared (Hoover, Jacobs, Anderson, & Hoover, 2000; Sheperd-Tew & Creamer, 1998).

Professional Development Schools (PDSs) (Lawson & Hooper-Briar, 1994) or interprofessional development schools (Corrigan, 1994) have been proposed as ideal sites for interprofessional training as they provide an environment in which collaboration between schools and universities is already the prevailing norm. Currently, there are more than 1,035 PDSs in existence in 47 states (Abdal-Haqq, 1999). Professional Development Schools (Holmes, 1986; NCATE, 1997) represent teacher education's analogue to medical education's teaching hospitals. They bring together university faculty and practicing educators and administrators in the training of pre-service teachers, serve as centers for inquiry and for developing professional knowledge and practice, and permit testing various models of collaboration. Although the mission of PDSs includes the education of other school-based professionals in addition to teachers, there has been relatively little attention to that type of interprofessional training in the literature (Abdal-Haqq, 1998), and only infrequent accounts (Osborne & Gray, 1995) of the use of PDSs as practicum sites to train them.

The purpose of this chapter is to report on a four-year interprofessional collaboration within a Professional Development School setting. The collaboration, currently in its fourth year involves interprofessional training and service provision between professionals in a rural school district and university faculty and students representing three professional preparation programs (school counseling, school psychology, and school social work) in two professional schools, (education and social work). The chapter describes initiatives at the individual student, school, and district levels.

THE INTERPROFESSIONAL TRAINING CONTEXT

This PDS collaboration occurs in the context of the rural school district's Intercede-to-Succeed (ITS) program, an early intervention initiative for low literacy first and second graders. The program is currently located at eight schools and is headed by a coordinator who holds a master's degrees in both school counseling and school social work. It is staffed by ITS reading teachers, who, in addition to providing literacy instruction, consult with parents, school personnel, and community agencies to provide comprehensive services for children. The ITS teachers also conduct home visits, organize and run an adult tutor/mentoring program for the children, and sponsor family nights in an effort to involve families in their children's learning. The university partners include students and faculty from the school counseling and school psychology programs, which are housed in the School of Education, and students from the school social work program housed nearby in the School of Social Work. Neither faculty nor students in these programs had previously worked together. Each student was involved in the project for a minimum of one semester, but, in most cases, involvement lasted for one academic year. Interns devote one day per week to the project with the exception of the school counseling interns who are involved for one-half day per week.

In an effort to facilitate interdisciplinary training and service provision, interns from school counseling, school psychology, and school social work operate out of a common school location, receive field training together, and work together for one-half to one day per week to assist the ITS teachers with consultation and the provision of mental health services to children in the ITS program. This effort was designed to: (a) reduce professional misperceptions and increase productive partnerships, (b) move away from discipline specific services to more comprehensive, interdisciplinary programs, and (c) focus on school-wide interventions that are more preventative than remedial.

Over the four-year period, interprofessional training has addressed a variety of topics including: (a) case management, (b) conferencing skills, (c) family connections, (d) home visits, (e) a multidisciplinary approach to planning for students with multiple risk factors, (f) traumatic event debriefing, (g) literacy skills, (h) technology, (i) substance abuse prevention and intervention, (j) community organizing, (k) conflict resolution, (l) classroom presentation and management techniques, (m) confidentiality, and (n) the effective use of volunteers. Training is provided by the ITS coordinator, university faculty, and professionals from both the school district and from community agencies. Interns receive supervision in both their traditional professional roles and in their interdisciplinary collaboration role. Supervision, both individual and small group, is provided by school-based professionals as well as by the university faculty and employs both a face-to-face format as well as video conferencing via the internet.

COLLABORATION AT THE INDIVIDUAL STUDENT, SMALL GROUP, AND CLASSROOM LEVELS

In addition to providing individual counseling to the at-risk ITS students, the interns jointly conduct home visits for case management of multi-risk students. Case management is conducted from an ecological framework that conceptualizes risk from four perspectives—child, school, family, and community. It occurs within an interdisciplinary group setting that includes the ITS coordinator, an ITS teacher, interns representing the three support-service disciplines, and their supervising faculty members. Sometimes the group's case management review session is conducted in a face-to-face interaction; at other times, it is conducted through video conferencing using Intel ProShare software that allows document sharing as well as voice and video communication.

The case management review consists of a four-step process: (1) identifying needs/risks (within the ecological framework) and available resources/services; (2) matching and prioritizing needs/risks with available resources/services; (3) developing and implementing service plans; and (4) reviewing, revising, and updating service plans several months later.

Figure 10.1 shows a written Service Plan that was developed by the interdisciplinary team, with one intern serving as "case manager" to coordinate and monitor service delivery. The case manager also scheduled a review of the case six months after the intervention had been implemented and before the school year ended. Among themselves, interns decide which of their special skills can best be used to identify various needs of the case, and in the interdisciplinary team meeting, resource personnel and programs are matched to the child's needs, resulting in a plan such as that for the student in Figure 10.1. In the Service Plan, assignments are made to interns for specific activities that include direct service delivery and obtaining related services from other professionals. Behavioral outcomes are specified as goals for evaluating effectiveness and the need for continuation, revision of services, or termination is determined at the follow-up team meetings.

Resource matching is facilitated by the use of the Schools and Community Resource Directory that was prepared by the interns under the supervision of the school psychology faculty member in the collaboration. The Resource Directory is updated annually and provides a program listing, eligibility criteria and contact person for school-based programs and community agencies. The Resource Directory is available on-line at the system's web site for access by parents and families, members of the community, and by school personnel. A sample page describing a program at one of the schools is shown in Figure 10.2.

The interns also collaborate at the small group and classroom levels. With respect to the former, they co-lead small group counseling sessions. Groups generally consist of four to six ITS students and the co-leaders. They meet weekly for 45 minutes and focus on assisting students in acquiring and displaying a variety of social skills such as making friends, helping others, and cooperation. At the classroom level, interns co-lead the "Peace Club," a classroom guidance approach to conflict prevention and conflict

CHILD	Developmental Delays & Attn/Distractblty	Teacher Assistance & Exceptional Childrens' Services	Refer to TAT Team Refer to SB Committee	Class Intvntns (Diagnosis) (EC Eligibility)
	Speech Delay	Speech & Lang	S&L Eval/SLTher	S&L Remediation
	Attn& Distractibilty	Medical	Physician Ref. for Rx/Tchr/Par	Medication
	"	Behavioral	Reinforcement Contingency /PDS Extrn/Intrn	> On-task Time
	Anger Coping Skills	Behavioral	Anger Coping Group/Counselor	< Reduce anger > Positive Behaviors
	"	ITS/PDS	PDS Extn/Intn	< Reduce anger > Positive Behaviors
FAMILY	Injuries	DSS	Refer to DSS/ITS Tchr	Eval
	Parenting Skills	Parent Training	School Programs/Sch Counselor	Improve Home Discipline
	"	ITS-Family Connections	ITS Home Visiting /Tchr+PDS Intn/Extn	
CULTURE & COMMUNITY	Parenting Skills	Parenting Workshop	Refer to Parenting Workshop	Improve Home Discipline
REVIEWERS:	Ms. Smith ITS Teacher	Joan Brown, Extern, School Psychology	Kevin Black, Intern, School Social Work	
	Barbara Myers, School Social Work	Dr. John Brantley, Supervisor, School Psychology	Dr. Gary Shaffer, Supervisor, School Social Work	Dr. John Galassi, Supervisor, School Counseling

Figure 10.1. Interdisciplinary service plan.

BEST COPY AVAILABLE

Chatham County Schools Program Directory

Program Title	ITS/Intercede to Succeed
Population Served	
Program Type	District-Wide Program
Location	Moncure Elementary, North Chatham Elementary, Perry Harrison Elementary, Pittsboro Elementary, Siler City Elementary, Silk Hope Elementary
Grade Level(s)	First and Second Grades
Information Contact Name	Barbara Myers
Information Contact Telephone	919-542-0897
Information Contact Email Address	mailto:bmyers@chatham.k12.nc.us
Program Description and Services	Mary Lee Moore, Program Director 919-542-3626 mlmoore@chatham.k12.nc.us *Intercede to Succeed*, in partnership with the schools, families, and community, is an early intervention literacy program committed to promoting the academic, social, and emotional growth of first and second grade students. ITS develops skills and resources which can be used throughout education by strengthening families and promoting current resources in the community which may be under utilized. *Intercede To Succeed* teachers work with individuals and small groups to develop reading and writing skills, and to encourage greater enthusiasm for learning. *The Literature Enhancement Initiative* enriches the students' exposure to children's literature and promotes the development of life-long learners. Volunteer tutors provide valuable assistance with directed reading and writing practice. Individual conference, home visits, and small parent groups encourage parental involvement in education and assist parents with other related needs in their families. Interagency cooperation reduces fragmentation of services and provides a more inviting approach to service delivery.

Figure 10.2. Resource directory.

	------------ ITS Teachers ------------ J.S. Waters School—Ann Stewart—555-2259 Moncure School—Mary Hoffman—555-3725 North Chatham—Carol Stamm—555-3094 Perry Harrison—Christy Machulski—555-9925 Pittsboro Elementary—Sharon Clapp—555-3987 Siler City Elementary—Emily O'Hare—555-2032 Silk Hope School—Bonnie Hobgood—555-3911
Students Served	Approximately 135 students at risk for academic failure who are below grade level in reading and/or writing who are not receiving Exceptional Children's services are served.
Referral Method	Referrals are made by classroom teacher with selection by the ITS teacher.
Program Goals	• Increase school success. • Increase parental involvement. • Teach a common approach to conflict management. • Improve collaboration in the school and community.

Figure 10.2. Resource directory. (continued)

resolution. Topics include conflict management, self-talk, understanding feelings, self-esteem, peer pressure, encouragement, compassion, empathy, decision making, leadership, and tolerating frustration.

COLLABORATION AT THE SCHOOL AND DISTRICT LEVELS

A unique feature of this interdisciplinary initiative is that interns receive specialized training in risk assessment/resource matching and in evaluating support service staffing needs that enabled them to make contributions to service provision and planning at the individual school and district levels. Because standardized testing is prohibited by the state before third grade, identifying students who are academically at risk in grades one and two and in need of early intervention was not systematically and routinely undertaken in the district prior to this collaboration. The interns, however, were taught how to compile data for an academic risk analysis-risk management system for schools in the district based on a procedure developed by the school psychology faculty member.

Using end-of-the-year grades from the previous year's report cards as well grades for the first six weeks of the current year, risk levels are compiled for each student in first and second grades for reading, writing, and math. The state's four-level system is employed to determine risk level. Levels 1 and 2 represent performance well below grade level, while levels 3 and 4 indicate performance at or above grade level respectively. A data processor employed by the schools compiles risk levels for first and second graders. School psychology interns prepare graphs showing the number of students who are at risk in one or more academic areas in each of the district schools. Needs for services, such as the ITS Program illustrated in Figure 10.3, are then projected based upon the number of students at-risk and the ratio of students that ITS teachers can serve.

In addition, the interns assist the principal and teachers to use these data to (a) inventory which students are in need of services to address their risk areas, (b) to determine what services are being provided to these students; and (c) to identify which students are not currently receiving any services. The goal is to match 100% of students who are identified as being at-risk in one or more of the three academic areas with appropriate services from the school, the school district, and/or the community. In this matching process, the Resource Directory developed and maintained by the interns once again provides the needed information about available resources to meet the identified student needs and identify service gaps.

Finally, the interns also aid in assessing professional support service staffing needs for individual schools and the district. The process involves ini-

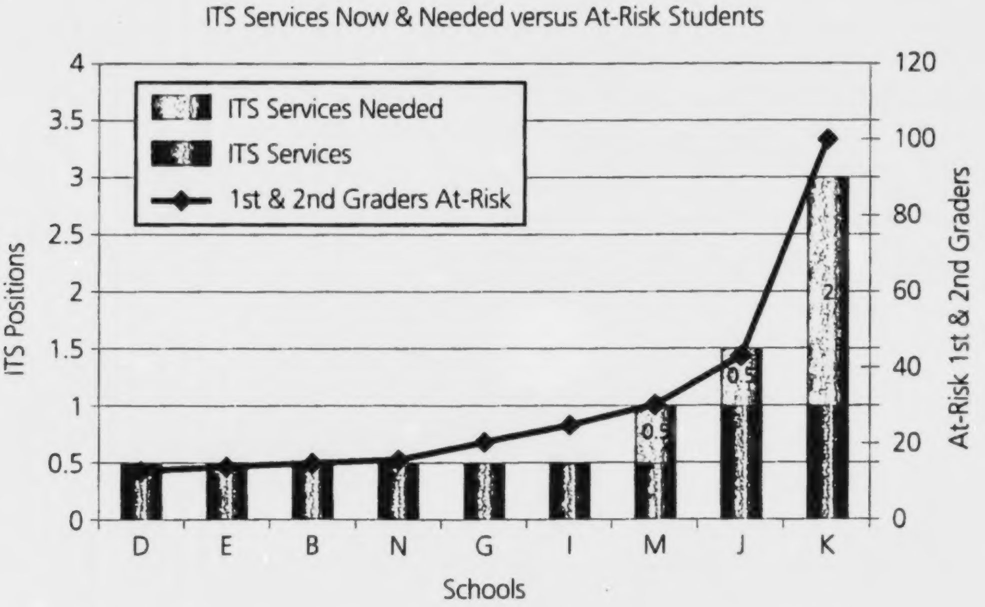

Figure 10.3. ITS services now and additional services needed vs. at-risk students.

tial comparison of the current ratio of students and support personnel in a given area—e.g., the ratio of students to school counselors in a given school—against current nationally recommended professional standards for that support area (250 to 1 for school counselors, 1000 to 1 for school psychologists, and 2000 to 1 for school social workers) and then making adjustments to the ratio based on the extent to which the percentage of students in the schools demonstrating special needs (e.g., for exceptional student services, ESL services and Title I) exceed national averages in these areas. Using these ratios for each of the three support service disciplines, administrators in individual schools and across the district can pinpoint schools that require additional staffing. Too often support service personnel are distributed equally across schools in a district rather than being assigned according to identified needs. Figure 10.4 illustrates this for the discipline of school counseling.

The model developed in the current project uses national standard ratios for each discipline, which are further adjusted on a school-by-school basis for the presence of as many as three high risk/needs groups such as: Title I, English as a Second Language (ESL), and Exceptional Children (EC). Estimates of staffing needs made by this model increase for each discipline by the following amounts for each need/risk factor present: School Counseling—10%; School Social Work—25%; School Psychology—20%. Estimates of staff needed for the 15 schools in this system are shown in Figure 10.4. The strongest case for additional staffing needs belongs to the four schools designated J, K, L, and M.

IMPACT OF THE INTERPROFESSIONAL INITIATIVE ON THE TRAINEES

In order to evaluate the impact of interprofessional training on the professional development of the school counseling, school psychology, and school social work interns who had participated in the program over the four-year period, a semi-structured telephone interview procedure was developed and administered during the fourth year of the program. Three undergraduate students who were not familiar with either the interprofessional training or any of the interns were trained to conduct the interviews. During the four-year period, 19 interns participated in the interprofessional training. Telephone interviews were conducted with 13 of the 19 interns (68%).

The interns evaluated a number of aspects of their experience including: (a) the value to their professional development of learning to collaborate with students and professionals from other disciplines; (b) the knowledge and skills they acquired from this interprofessional training

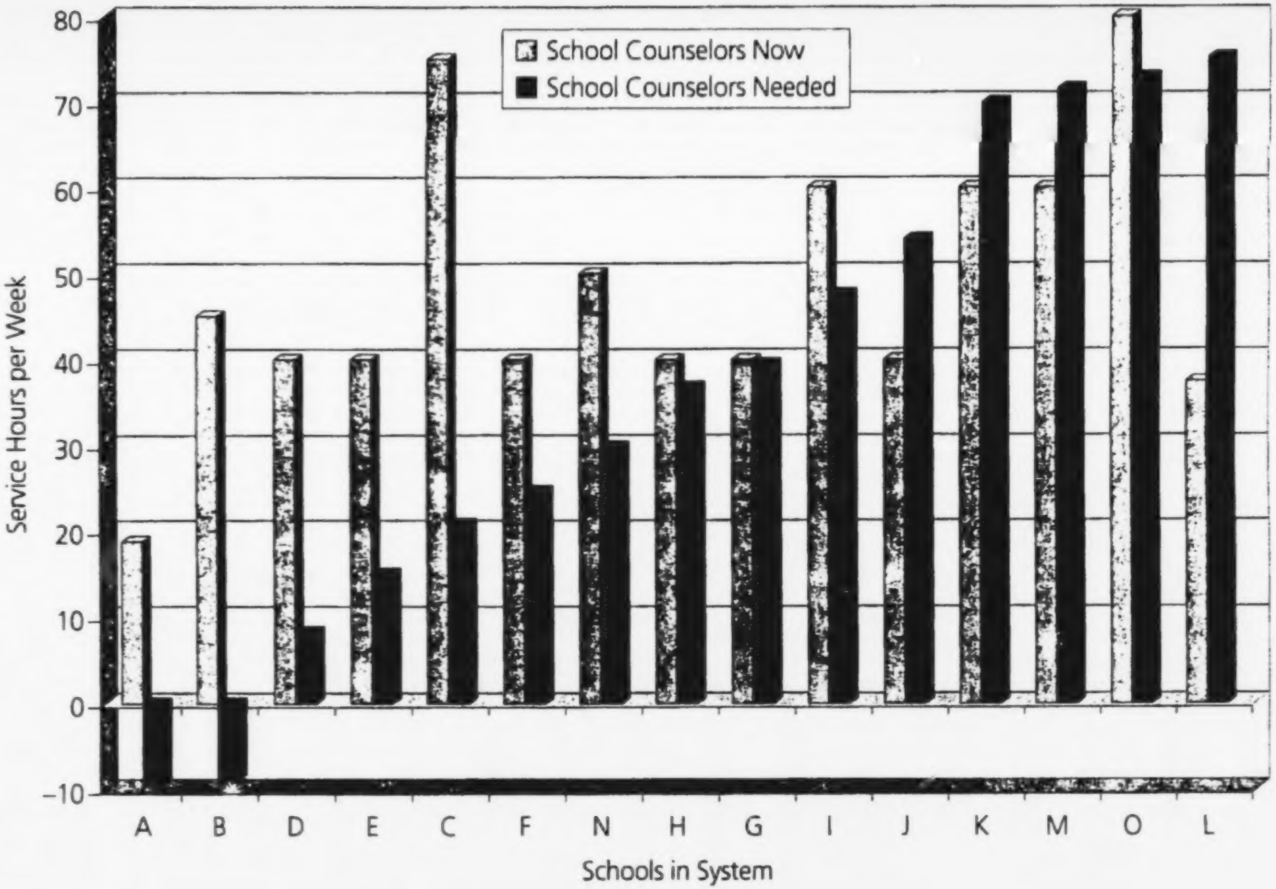

Figure 10.4. Services provided now and services needed for school counseling.

experience; (c) the extent to which what they learned differed from what they learned in their traditional field experiences; and (d) the suggestions they had for improving the experience.

Overall, the interns felt that the experience had a very positive impact on their professional development. They were impressed with the importance and value of working as an interdisciplinary team. It broadened their perspectives and gave them a more positive opinion and a greater understanding of the roles, responsibilities, and skills of the other disciplines. Multiple perspectives helped in making assessments and discussing possible interventions. "There were different perspectives that came together in great synergy," was the comment of one social work intern. A school psychology intern noted that, "It made my opinion [of the other disciplines] more positive because I gained a greater understanding of their roles in the school system . . . I think it will have a positive effect because I will be more likely to go to them and work together with them." Similarly, a school counseling intern remarked, "It was valuable because I had the opportunity to work together on an interdisciplinary team. This gave me a better idea of how everyone can work together for the good of the child."

Not surprisingly, the specific knowledge and skills acquired by the interns were to a large extent discipline specific. The most specific gains tended to be reported by school psychology interns, whose traditional training emphasizes the development of assessment skills related to screening for exceptional children as well as skills for consulting with teachers. These students reported acquiring skills in a variety of areas including: (a) individual and small group counseling, (b) case management, (c) work with families, (d) work with the community, (e) risk analysis and working with at-risk children, (f) grant writing, and (g) supervision. As noted by one school psychology intern, "The role was different. In the PDS, I got to be an 'ideal' school psychologist. I was able to broaden the scope of my training by doing school counseling, home visits, and presentations." The school counseling interns commented on the skills that they acquired working with families and focusing their efforts on an at-risk population. "The difference is that the family connection was emphasized in the PDS placement. It was different in that we were more involved with the family unit, and I gained family interview techniques." The school social work students reported gaining skills in leading groups and honing research skills. "With the PDS placement, I broadened my perspective from just one school to the workings of an entire county. I also received a formal research-oriented component to the placement. I did risk analysis of different schools, coded services, updated the community Resource Directory, and did case management." Another social work intern commented that, "I gained effective skills in leading group counseling sessions which is good for professional development in general."

The supervising faculty note that the experiences the interns had and the skills they acquired in their PDS placement differed from those of their usual field experiences. The greatest differences were experienced by the school psychology interns who were not responsible in this placement for their traditional role of assessment for exceptional children services. That involvement typically accounts for 50% or more of their professional time or role (Fagan & Schicke, 1994). For the counseling students, the heavy emphasis on family work represented a major difference from their typical field experiences. The greatest difference for school social work students was that the experience was more structured and focused on a single school rather than their customary field experiences and that it involved them in a structured assessment and research experience. Thus, the PDS experience broadened the interns' professional skills and enhanced their knowledge and appreciation of each other's roles.

Beside the fact that several interns commented that more or extended training was desired, suggestions for how the interprofessional training experience could be improved tended to vary according to the year that the intern participated in the program and, to some extent, according to the particular discipline that he or she represented. Interns who participated in the first year or two of the program commented on the need for more clearly defined roles and tasks and for greater interaction between the university and school professionals. "I felt that the interactions were collegial to some extent, but that the ITS teacher did not understand my role, training, and background at times," was the comment of one school psychology intern. An early school social work intern noted that, "We had a couple of meetings and an evaluation meeting. We were all on the same page, but there was minimal interaction."

The school psychology interns offered a number of suggestions about how the experience could be enhanced. They were the most heavily involved of the three disciplines in analyzing data for the risk analysis component of the experience and recommended reducing the amount of time devoted to this task. In addition, they were the only group of interns without an on-site school psychologist to serve as a staff mentor and recommended renewed efforts be undertaken to enlist the participation of a school psychology mentor from the school district to participate in the project. They also recommended that a class be developed so that interns could learn more about each other's disciplines.

The school social work students suggested adding even more emphasis on family outreach, while the school counseling students who spent the least time in interprofessional training (one-half day per week rather than one day per week) recommended more time at the site, better organization of what was expected of interns, and more extended training.

BARRIERS TO INTERPROFESSIONAL TRAINING

Although this effort has impacted district students, the professional development of district educators, and the professional development of university students and faculty in three disciplines, we have encountered a number of barriers along the way. We have overcome some of these barriers and continue to struggle with others. We have come to refer to these barriers as the "Troublesome Ts." They include: (a) turf or territoriality, (b) time, (c) timing, (d) terminology, (e) theory, (f) training-service balance, and (g) travel. A few examples will illustrate the type of problems that we have encountered.

Turf and territoriality issues arose along two dimensions—among university training programs on the one hand and between university and school district professionals on the other hand. For the university training programs, these issues were illustrated by the fact that the three programs had never collaborated with each other before this project, even though two of them were housed next to each other on the same floor in the same building. Moreover, the school counseling and school social work faculty members in this collaboration had previously served on a committee together and had consistently disagreed about a professional issue. Turf issues were also evident between district school psychologists and the school psychology faculty member. District psychologists were concerned that the collaborative PDS role would conflict with their responsibilities and were unwilling to mentor or supervise school psychology students in the collaboration role.

Time problems were presented by the fact that the three programs had different class and field experience schedules, and it was difficult to find a common time for all three disciplines to devote to interdisciplinary training and service provision. It was also difficult to find a common location for the interdisciplinary effort. In fact, it took three years for all three disciplines to be able to get together at the same site on the same day. In two prior years, it was only possible for two of the three to get together at the same place at the same time, and the particular pairs of disciplines that worked together varied in the first three years.

Until we adopted an ecological model for our interdisciplinary work, lack of common terminology resulted in frequently having to interrupt case management sessions in order to translate professional language across disciplines. Although those translation moments still occur, they are considerably less frequent at this time and are less time consuming.

Theoretical disagreements were encountered in the social skills groups with the university preferring a cognitive-behavioral perspective and the school personnel espousing a Reality Therapy orientation. Theoretical differences were also encountered with respect to how far to extend case management. The university favored comprehensive, interdisciplinary service delivery with resource mobilization. The school personnel espoused a restricted crisis-oriented focus that concentrated primarily on the student and services available within the school system.

The ideal training-service balance was perceived differently by the university and the school system and represented yet another challenge to resolve. Lengthy discussion and negotiation resulted in a more satisfactory balance to both parties. A final troublesome "T" was the time it takes for three university faculty to travel to the sites on the same day for interdisciplinary training supervision sessions. That challenge led us to experiment with videoconferencing as a supervisory mode and as an approach to reduce travel costs and time.

FUTURE DIRECTIONS

In order to effect far ranging systemic changes, interdisciplinary training needs to impact administrators and teachers as well as support service professionals. In the current collaborative effort in the district, all principals participate in a PDS Principals' Forum that is facilitated by an educational leadership faculty member and his graduate students. The purpose of the forum is to make data-based decisions about programs for at-risk students. One of those decisions, for example, was to extend the Intercede-to-Succeed intervention to each of the elementary schools in the district.

To date, however, there has been little or no collaboration between the educational leadership interns and the interns in the support services that we have been training. Beginning this year, however, that will change. The faculty from the support services training programs will be meeting with the educational leadership faculty to determine how to extend the interdisciplinary training in order to incorporate the educational leadership intern into the process. Possible areas of collaboration for the student support service and educational leadership interns include planning and case managing interdisciplinary services for individual students and developing and implementing an at-risk intervention at the school and district levels.

Currently, student teachers also do not participate in this interdisciplinary training and are not even placed in the school in which this collaboration is taking place. However, discussions are taking place with the faculty in the elementary education program to include student teachers in the collaboration one year after the educational leadership interns have been incorporated into it. Students and their families who are receiving services from the ITS program and who are taught by the student teachers could provide one way in which student teachers could be involved in the interdisciplinary training process. Thus, student teachers in conjunction with the support services and educational leadership interns could become active participants in the case management process and sessions for their ITS students. In addition, they could observe and participate in the Peace Club sessions that the student support interns conduct in the student teachers' classes and would be knowledgeable about the social skills groups in which the ITS students in their classes are participating.

Finally, we want to add a greater asset or protective factor orientation to the interdisciplinary training. We want to mitigate risk factors for children and families as well as to help them to develop protective factors and assets. In many instances, it is difficult or even impossible to eliminate risk factors (e.g., birth defects, poverty). At the same time, research on resiliency (e.g., Benard, 1991; Fraser, 1997; Werner & Smith, 1992), developmental assets (Benson, 1997), and related areas (Hawkins, Catalano, & Associates, 1992) has demonstrated that (a) people can overcome these risks or reduce their effects, (b) that there are identifiable protective factors in the individual and the environment that enable them to do so, and (c) that schools and communities can do a great deal to foster and enhance these protective factors.

Professional Development Schools have tremendous potential as integrated training and research sites not only for teacher education but also for student support personnel. They provide a venue in which teams of educators at both the pre-service and in-service levels can develop their skills and learn to work effectively together to enhance student learning. We hope that the nontraditional PDS efforts in which we have been engaged will stimulate others to become more involved in interprofessional training and research within the Professional Development Schools context.

NOTE

1. This PDS participated in the NCATE Draft-Standards Field-Test, and the authors thank NCATE for providing financial support for evaluating the impact of the project on the interns.

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CHAPTER 11

HOW AN INTEGRATED UNIT INCREASED STUDENT ACHIEVEMENT IN A HIGH SCHOOL PDS

John Fischetti and Ann Larson

ABSTRACT

This chapter is a case study of one team of teachers at a high school Professional Development School (PDS), who in the spring of 2000 implemented an integrated unit with their sophomore students. The purpose of this case study was to (a) explore the impact of an integrated unit and interdisciplinary teaming on the achievement of students, and (b) analyze the experiences of teaming for the faculty involved. The integrated unit theme was organized from an essential ecology question, "What Happens to the Stuff We Don't Want?" This question emerged from a team brainstorming session with university faculty involved in a partnership grant tied to PDS work. Teachers and collaborating university faculty decided that the unit topic would involve authentic performance tasks and would reflect student "choice" of topics in relation to the unit's essential question that would interest, engage and inspire students. Our findings in this study are that student attendance, student behavior, and student grades improved as a result of the project. Our fear is that teachers will continue to be distracted from the mission of helping all students succeed and in working together as colleagues because of (a) the time demands on excellent teachers inside and outside

the classroom, (b) the excessive and exhausting demands of preparing students for high stakes assessments that do not emphasize integrated curricular approaches, and (c) scheduling and other structural barriers that discourage teaming.

INTRODUCTION

A plague has been sweeping through American schools, wiping out the most innovative instruction and beating down some of the best teachers and administrators. Ironically, that plague has been unleashed in the name of improving schools. Invoking such terms as "tougher standards," "accountability," and "raising the bar," people with little understanding of how children learn have imposed a heavy-handed, top-down, test-driven version of school reform that is lowering the quality of education in this country (Kohn, 2001).

Proponents of high-stakes testing argue that it leads to achievement and other gains:

1. Students know what is expected and that the test really counts, so they work harder.
2. Schools identify and can address student weaknesses early.
3. Similarly, schools discover areas of overall weakness, prompting them to refocus resources where they are most needed.
4. Education across the state is more consistent, eliminating situations where schools in some districts are superior to others.

The public sees gains from year to year and regains confidence in public schools (Education Commission of the States, 2000).

Proponents also advocate that schools must have clear, measurable goals focused on basic skills and essential knowledge. Requiring annual state assessments in math and reading in grades 3–8 will ensure that the goals are being met for every child, every year. Annual testing in every grade gives teachers, parents and policymakers the information they need to ensure that children will reach academic success (Bush, 2001).

Opponents, however, state that high stakes testing often harms students' daily experience of learning, displaces more thoughtful and creative curriculum, diminishes the emotional well-being of educators and children, and unfairly damages the life-chances of members of vulnerable groups (National Council of Teachers of English, 2000).

Proponents and opponents of high stakes assessments have made it clear where they stand on the issues facing America's public schools. Through the arguments and counterarguments about the merits of this "accountability" environment, there remains little classroom-based evidence to support or contradict that an integrated curriculum taught by interdisciplinary teams can yield positive achievement results. While those who advocate "best practices" encourage the overlap of content and project-based learning to expand the experiences of students, the standards and high stakes assessment movement has tended to lead teachers to design fewer integrated opportunities. Where there are teams of teachers working together, most do less "formal teaming" than before. There are so many standards to address and so little time.

This chapter is a case study of one team of teachers at Fairdale High School in Jefferson County, Kentucky, who in the spring of 2000, implemented an integrated unit with their sophomore high school students. In addition to being a diverse urban school of just under 1,000 students, Fairdale is recognized for its leadership in the Coalition of Essential Schools. Fairdale's unique curriculum includes Public Safety and Heavy Highway Construction programs and a number of school restructuring initiatives. Fairdale has been a Professional Development School (PDS) in partnership with the University of Louisville for the past 12 years. The role of the PDS in Fairdale's work will be included in our description and analysis of the data of the team efforts. Our work on this study has enabled us to recognize that teaming is one of the most underused reform strategies in high schools. The Fairdale Legendary Team is a bright example of good teachers who are even better because of a team approach. We also have learned again that, even for the best teachers, teaming is complex work made even harder by the demands of high stakes assessments, standards and the pressures of working with students who have a wide range of expectations about their own school success.

Results of this study indicate that effective integrated curriculum taught by an interdisciplinary team can increase student attendance, grades, and overall student achievement at the classroom level.

The Professional Development School (PDS) relationship to this study is multifaceted. First, this unit was designed and implemented as a result of a collaborative grant awarded to Fairdale from the school district and university. Second, each of the teacher members of this team is a graduate of the University of Louisville's PDS program at Fairdale. Long-standing relationships have guided the development of this team and each member has a history of deep involvement in PDS work. Fairdale's commitment to the PDS, to the work of serving all students, and to linking teacher preparation to school reform is a synergistic, organic effort for both institutions.

EVOLUTION OF THE PROFESSIONAL DEVELOPMENT SCHOOL PARTNERSHIP

This PDS is part of a larger set of relationships among the Jefferson County Public Schools (Louisville, KY), the surrounding school districts of the Ohio Valley Educational Cooperative (OVEC), and the University of Louisville. Our partnership was selected as one of 19 sites funded as part of the National Council for the Accreditation of Teacher Education (NCATE) PDS Standards Project in 1998. One of the most important first steps of the study was to refine the four goals of PDS from the Draft Standards Document. Our partnership recast them as follows:

1. Improving the lives, learning, and opportunities of all students.
2. Enhancing the curriculum, structures, school culture and community ties for the high school and University of Louisville staff and faculty.
3. Preparing new educators in a professional, collegial environment within the context of experiences that they will likely face in their early years.
4. Researching, assessing, reflecting upon and/or disseminating the results of our work.

These goals guide the work of our partnership as it continues to evolve. Our work with new and experienced teachers begins with "what is good for kids." In 1988, Fairdale High School was immersed in rethinking all aspects of the school. Under the leadership of its principal, Fairdale teachers, staff and community:

1. Joined the Coalition of Essential Schools as one of the only large urban member high schools in the country;
2. Initiated teaming at the ninth and eleventh grade levels;
3. Focused on emerging standards in the content areas;
4. Developed a public safety magnet program open to all students;
5. Eliminated tracking;
6. Mainstreamed special education students;
7. Formed a 24-member school council representing all constituents; and
8. Planned for a building redesign.

At the time, a university mathematics education professor was working with Fairdale's mathematics department on curriculum revisions stemming from the just-released National Council of Teachers of Mathematics (NCTM) standards. Another professor was asked by the principal to work with the new freshman interdisciplinary teams and the junior level American Studies team (called "U.S. is Us"). His role was to facilitate planning meetings and curriculum sessions to help work out the pedagogical and personal issues that often stymie development of new teams.

Simultaneously, the Department of Secondary Education at U of L began to explore revising its campus-based teacher education program. Because of the connections to the work at Fairdale, a team of more than 15 teachers and its entire administrative staff volunteered to work with department faculty to rethink teacher education. For the next several months, meeting weekly at Fairdale, on campus or around the city at various sites, the group: (a) studied national reports from The Holmes Group, (b) linked school reform efforts at the high school level to university reform, and (c) reviewed program evaluations from current and former teacher education students.

What emerged was a new model, based on housing our program at local high schools that shared our vision of quality and equity and placed teacher education experiences where new teachers were likely to be hired. Since a vast majority of students were already completing the initial teacher certification program in an extra undergraduate year or as post-baccalaureates, a key decision was to move to a Master's level program. The change to a graduate program also assisted the School of Education in evolving the conceptual framework around the theme "Teachers as Learners and Leaders." Courses were redesigned to be assisted by teachers and administrators, and schedules were revamped to give clustered time for intense school visits. Projects were created to combine theoretical reading, writing and reflecting with the practical experiences of being in content area classrooms for extended time periods. In addition, a service-learning component was added and school-change projects were imbedded in the on-site courses, co-created by the participating teachers, building principals and university faculty.

In 1990, the Kentucky Education Reform Act (KERA), the state's massive school reform legislation, was enacted, energizing and legitimizing changes undertaken in forming our partnership. The development of standards in each content area and for (a) P–12 students, (b) new and experienced teachers, (c) administrators, (d) teacher educators, and (e) Professional Development Schools had set a "high bar" for the quality of our work. Thus, portfolios became imbedded in the work of high school students and our teacher education students. Fairdale teachers and administrators began to serve on the search committees for the department, on the School of Education's collaboration board, on program planning task forces, and so forth. Secondary education faculty began to serve on Fairdale's school-based decision-making council, participate with committees and task forces, lead or assist in professional development seminars, and meet regularly with teachers, staff and administrators to review the ongoing work. Two examples of the related work include: (a) assisting with the annual faculty retreat (at Fairdale called an "advance"); and (b) facilitating the process of determining the block schedule. As we look across the goals of a PDS, we are most proud of the ability to overlap them in ways that allow us to continue to advance the work over time.

CHANGING NATURE OF THE WORK

Typically, teacher education students learn through university coursework and field experiences that focus on what might be called "outsider" assignments and activities. In this context, theoretical foundations, general and content methods and study of the structure and organization of schools become the focus of the work. It is our belief that such disconnected, decontextualized experiences narrow the authentic learning that naturally emerges in an "insider," school-based setting.

Since the inception of the school-based "Pre-Student Teaching" course, the syllabus has been designed around a set of authentic, school-based projects. Each summer, projects are brainstormed, shaped and designed at the Fairdale "advance" and in other professional development sessions. The projects reflect initiatives that drive school change, promote collaborative work and develop common understandings among participants in our PDS: pre-student teachers, teachers, university professors, students, parents and staff. One project linked U of L students with Fairdale with special needs students. A second example was a "self-esteem" project where a group of U of L students worked with a Fairdale ninth-grade English teacher to match freshmen with compatible seniors for mentoring and self-esteem enhancement. In a third example, a group from of U of L helped Fairdale teachers prepare a resource book of strategies to enhance literacy skills across the disciplines.

TGA (TEACHER GUIDED ASSISTANCE) PROJECTS

As part of the Teacher Guided Assistance Project (TGA), Becky, a pre-service teacher, worked for several weeks with one of her students, Josh. He was a reluctant reader, and he struggled with writing, completing his class assignments and attending school on a regular basis. As Becky and Josh worked more closely together, Josh began to show a spark of interest and enthusiasm toward his work. He came to school more regularly and was more engaged in his work. One day after TGA, during a whole-class session in our U of L class, there was a knock on our door. We opened the door to find the Youth Services Center Director with Josh at his side. Josh had come to him that very morning, confessing that he was a struggling reader. Josh said that he had learned to hide his low literacy skills and that he often missed school for this reason. Josh revealed what we knew to be sophisticated defense mechanisms to avoid or "bluff" his way through any assignment that involved reading and writing. In our conversation, Josh told us that because of his work in TGA, he had summoned the courage to come forward and ask for help—he wanted to be a reader. His parents did not read, and he foresaw a life of struggle ahead of him. He credited Becky with inspiring him and believing in him. A number of our pre-student teachers volunteered to assist Becky in additional sessions to tutor Josh throughout the semester, and the Youth Services Director committed to work with Josh and his teachers to get Josh additional academic support. Josh knew that becoming a reader would be his ultimate challenge, and he wanted desperately to begin the process.

This is just one of numerous success cases that emerged from the TGA experiences our pre-student teachers had with Fairdale High School students in the introductory course project. Our pre-student teachers had experienced eye-opening experiences with their TGA students—invaluable "lived" case studies that universities could not even begin to teach from teacher education texts. Each pre-service teacher was placed with three students with special needs for the advisory block on the two days a week classes met at Fairdale. Other successes included: (a) a student discovered she was pregnant and wanted her pre-student teacher to advise her on how to approach her parents with the help of a Fairdale counselor; (b) a male student was planning to participate in an act of violence and confided in a pre-student teacher, who, in consultation with a course instructor, talked with an administrator who intervened; and (c) a number of high school students with zero averages in mathematics were tutored by pre-student teachers and began to submit work in class. At the end of the semester, pre-student teachers wrote rich reflections of their experiences in TGA. They shared what they learned about adolescents, about special education, about the complex lives students lead, and about themselves as teachers and learners.

Self-esteem

Another project from the Pre-Student Teaching course was called "Enhancing the Self-Esteem of Fairdale Students." For this project, pre-student teachers worked with a ninth grade English teacher to design an enrichment curriculum on self-esteem for high school students. The nonfiction book *Go Ask Alice* is usually taught to freshmen students. Inevitably, students are concerned with the main character, Alice, and discuss her motivations, her identity and the role of self-esteem in the poor personal choices she makes. Linking this course text to the change project for pre-student teachers was a natural way to ground the topic of adolescent self-esteem in content and context.

Pre-student teachers met with the teacher and his students to discuss ideas related to self-esteem. Pre-student teachers then took these ideas and shaped a project that resulted in a variety of strands. One of these ideas included ninth grade students who wrote journal entries in their writers' notebooks for an audience of seniors at Fairdale; the seniors served as response partners to the ninth graders. Pre-student teachers conducted a literature review to determine what current research would contribute to the self-esteem project. Pre-student teachers also met with each group of high school students to talk about writing prompts, norms for being appropriate in one's writing, norms for appropriate responses, and procedures for submitting the writers' notebooks and responding to them. Pre-student teachers gathered and shared materials with the teacher and his students, and they also compiled readings, teaching methods and curriculum ideas related to this topic for all Fairdale teachers.

Literacy

A third course project was "Enhancing Student Literacy." In 1998–99, the Jefferson County Public Schools identified literacy as an area of focus for all schools. The literacy project in our course was closely connected to the district focus and was designed to enhance teachers' repertoires to help their students become better readers. For the literacy project, MAT students worked with university faculty and with Fairdale teachers to research effective curricular strategies to enhance student literacy. A goal of the project was to give teachers hands-on materials in their respective content areas. The group created a literacy handbook for all Fairdale teachers. The handbook included an overview of research literature, current perspectives on general methods to enhance literacy, and specific strategies and activities for content area teachers to use to promote literacy in their classrooms. Along with a variety of research and teaching resources, the handbook also included: (a) graphic organizers, (b) strategies to enhance reading and writing in content areas, (c) a teacher observation checklist to assess reading, and (d) a survey of student attitudes toward reading. At the conclusion of their creation of the handbook, pre-student teachers shared what they learned through mini-lessons and a formal presentation to their MAT colleagues in the Pre-Student Teaching class. They also implemented strategies they learned as a result of this project in classrooms for their field experiences and shared the handbook with Fairdale teachers. Pre-student teachers learned that literacy has multiple meanings and involves reading, writing, and understanding multiple texts in all content areas. In addition, they learned that literacy should not be primarily the work of English teachers but of all teachers.

Mutual Benefits

Through the 12 years of the PDS relationship between Fairdale and U of L, several mutual benefits have evolved, including:

1. Respect for dedication to students at all levels. This respect has helped both Fairdale and Secondary Education faculty work through complicated issues around implementing school reform and change in general. There is virtually no discussion of "the ivory tower" or evidence of "teacher bashing."
2. Growing faculty. One of the most important benefits of this partnership is the opportunity to use the "Pre-Student Teaching" class and student teaching as a chance to "check out" prospective teachers. This has led to hiring 14 graduates of the U of L program as Fairdale faculty, including three department chairs, the co-chair of the school-based decision making council, and those who play leadership roles in a number of key aspects of the school.
3. Influencing each other's work. Fairdale staff members serve on a number of key committees in the School of Education and in the Department of Secondary Education. One university faculty member serves as a member of the Fairdale School-Based Decision Making Council. Both key university faculty co-facilitate professional development opportunities and work with new Fairdale teachers in the Kentucky Teacher Internship Program.
4. Sharing a commitment to change. Both Fairdale and the Department of Secondary Education are committed to ongoing change for the benefit of students, schools, and the community. This commitment continues to be a cornerstone of our relationship.

THE IMPORTANCE OF PDS WORK

The interconnections of the four goals of PDS continue to make the collaborative work challenging, vibrant, and emerging. The three project examples shared above, chosen from a range of course projects, show multiple levels of involvement. The TGA project touched students with special needs across the school at all grade levels. The self-esteem project helped an English teacher enhance the expectations of his freshmen students and included upperclassmen in the process. In addition, the literacy project served as a professional development resource, linked to a year-long emphasis on improving reading performance. With other projects across the school working in different areas (such as revising the student handbook, changing the teacher handbook, developing a web page, and assessing an anger management curriculum) the collaborative work between Fairdale and U of L has become mutually beneficial for all involved and contributes to our goal to make a difference in the lives of students over time.

> What I have noticed is that the U of L student teachers really come in now and work to help students understand what is expected of them. They don't stand in front and tell kids what to do; they work with kids to establish a learning environment where students want to learn. (Fairdale Parent)

PURPOSE FOR INQUIRY

The purpose of this case study was to: (a) explore the impact of an integrated unit and interdisciplinary teaming on the achievement of students; and (b) analyze the experiences of teaming for the faculty involved. Each of the team members is a graduate of the U of L secondary teacher education program and the team regularly hosts U of L pre-student teachers and student teachers. The integrated unit theme was organized from an essential ecology question, "What Happens to the Stuff We Don't Want?" This essential question for the unit emerged from a team brainstorming session with U of L faculty involved in a partnership grant tied to the PDS work. The teachers and collaborating faculty from U of L decided that the unit topic would involve authentic performance tasks and would reflect student "choice" topics in relation to the unit's essential question that would interest, engage and inspire students.

The primary trait of a performance task is that students must develop a real product and perform a demonstration of their learning. Performance tasks are based on a significant issue or "essential question" and require students to conduct an investigation and inquiry and to create a culminating project that is presented to a "real audience." As such, performance tasks are more complex in nature than performance events such as open responses or portfolio prompts. Performance tasks usually take several days to several weeks for students to complete and require students to use a number of skills, strategies, and levels of cognition.

Students in the Legendary Team's English, science, social studies, and mathematics classes participated in a series of multi-day lessons in the team's unit. Creating an integrated, performance-based learning environment requires a number of curricular and collaborative changes on the part of teachers. For example, it requires teachers to make decisions in the early stages of planning about what their students should know—based on state curriculum guidelines, standards of their respective professional content associations and district performance standards—and what students should be able to do with this knowledge. The Legendary Team had teamed for a number of years but had not planned and taught an integrated unit during the 1999–2000 school year. For this unit, the team wanted to focus specifically on the value of performance assessment in their unit that would provide them with the following:

1. A deeper understanding of what their students should know and what is needed to be done to enhance students' learning and satisfaction with their learning;
2. A method of assessment that is more interesting and relevant to students with some structure and much choice;
3. A method of discovering what students know and how they can apply the knowledge they have constructed;
4. A way to authentically assess or evaluate their students' learning from a culminating project or performance task in a standards-based learning setting;
5. An adaptable method of assessing a variety of student talents and abilities curricula that provides students with a more engaging and active way of learning;
6. A strategy to provide students with more information about what they are expected to know and be able to do than fixed-response tests such as multiple choice.

The focus of this case study was to contribute to our understanding of the impact of integrated curriculum and teaming on (a) student learning and achievement, and (b) teachers' professional development on designing performance tasks that constitute "best practices" in curriculum design and pedagogy. Additional questions that informed this case are: (a) What evidence exists that the U of L/Fairdale partnership and the Legendary Team take seriously the role of student assessment? (b) How do the groups in the partnership approach curriculum and student assessment? (c) In what contexts of the Legendary Team does this occur? (d) What is evidence of student learning? (e) What are the approaches to developing assessments, such as performance tasks that inspire confidence in assessing student learning? and, (f) does a school-wide focus on student learning through inquiry lead to improved student achievement and teacher growth?

METHODOLOGY

The research method for our study is a case study that presents an account of the phenomena of integrated curriculum and teacher teaming on student performance and achievement (Yin, 1989). Innovative programs and practices are often the focus of descriptive case studies in education (Merriam, 1997). Case study methodology is appropriate for this study because it involves explanation and allows for "thick description." Case study method is: (a) theoretically or conceptually grounded, (b) is holistic and lifelike, (c) simplifies data to be considered by the reader, (d) illuminates meanings, and (e) can communicate tacit knowledge (Denzin & Lincoln, 2000; Stake, 1995).

Sampling/Instruments/Protocols

For this project, the four teachers and two researchers developed a case study of the tenth grade team of teachers at Fairdale High School known as the Legendary Team. Three of the four teachers—Erin, Scott and Joe—have taught for more than seven years. Amy, the fourth teacher, had taught for three years at the time of this study. All are successful teachers, and Joe and Scott are department chairs. The subjects of our case study varied in personal and academic background but had similarities in age, beliefs and philosophies about teaching, learning, and instructional style. Each team member is actively involved in sponsoring co-curricular or extracurricular activities. The team has represented the school in networks such as the Coalition of Essential Schools, the Annenberg Foundation, the Center for Leadership and School Reform and various Jefferson County leadership workshops. This case study emerged because the teachers wanted to engage in inquiry related to their team and agreed to give researchers access to their classrooms and team planning sessions for data collection.

As is common in qualitative research, we employed an "emergent design" that allowed us to make adjustments as the study unfolded. We met with the teachers during team planning sessions to discuss questions to converse about curriculum, to study student work, and to keep our procedures uniform. We also met to link our discussions back to teaching and learning, particularly around the focus of student achievement, interviews, teacher records and archival evidence of teacher and student work.

Limitations of this Study

As in all qualitative research, the limitations of the study include the "closeness" of the researchers to the team, the data sources and the mission and vision of Fairdale High School. These limitations are expressed well by Babbie (2000). The researchers' roles were as participants-as-observers; that is, we actively interacted and participated with the teachers and students while acknowledging we were conducting research. While this familiarity with the teachers and students affected and influenced the data analysis, familiarity can assist the data collection process and, indeed, can add to the richness, honesty and integrity of the results.

Research Questions

The Partnership Steering Committee (PSC) and the Fairdale Legendary Team of teachers, in response to the NCATE PDS Standards Field Test Project research and inquiry activities protocol designed a set of research questions for this case study. The Partnership Steering Committee included the principal, the assistant principal, and the special programs coordinator. Areas we chose to explore were:

1. The impact of integrated curriculum and teaming on teacher growth;
2. How teachers and students perceive their work;
3. How teachers best serve students in achieving at high levels through engaging curriculum and successful complete alternative assessments (e.g., performance tasks).

The following initial research questions were developed by the PSC and Legendary Team before the study began:

1. What are students to know and be able to do as a result of their learning experiences in this unit?
2. What "counts" as learning (i.e., performance tasks, learning goals/academic expectations, standards)?
3. What evidence exists that students learned as a result of their experiences in this unit?
4. What constitutes "best practices" in the Fairdale team in teaching this unit?
5. How do such practices affect students' learning and achievement?
6. What are the approaches to developing assessments that inspire confidence in assessing student learning?
7. How are the issues and performance tasks in the unit relevant to students' lives?

8. What evidence exists that the team takes seriously the role of student assessment?
9. How does a culminating event (performance task) in the unit provide evidence of a cycle of inquiry for students? for teachers?
10. Does a team focus on student learning through curriculum development and inquiry lead to improved student achievement and/or to teacher growth?

Eventually, our research questions were narrowed for the case study in consultation with the teachers to focus on the following key elements: What have you learned about integrated curriculum? What have you learned about the ability to design curriculum that motivates students? What have you learned about student results? What have you learned about teaming?

Throughout the spring semester 2000, researchers: (a) observed the teachers at team meetings; (b) met with them for debriefing and discussion sessions; (c) collected curriculum evidence and student work; (d) attended class sessions to observe student project-related work and their performances of the work; (e) engaged in observations of teachers and students; and (f) wrote field notes from these sessions, meetings and observations. Thus, the procedures for this case study involved multiple data sources: student work products, pre- and post-surveys of students, observations of students and teachers in class and during a sample of the culminating events, and field notes from observations and team meetings.

During our sessions with the teachers, we discussed researchers' field notes, considered analyses, and critiqued student work. Teachers asked questions and debated interpretations as we helped each other analyze the curriculum and student work. Throughout these meetings, we continued to focus on our research questions. The researchers sought feedback from teachers on tentative findings and offered options to teachers to mull over our discussions and their work. As the data were being analyzed and written, teachers and researchers met to respond to the draft. Following the same process used with the multiple data sources, we worked back and forth with teachers to make meaning and sense of the data as part of the analysis. We found that our sessions with the teachers stimulated reflection and collaboration.

Analysis Procedures

Researchers analyzed the data in multiple ways with the assistance of the Partnership Steering Committee. A teacher analyzed the pre- and post-survey results. University faculty analyzed the interview data, field notes from teacher and student classroom observations, team meetings, and student work products. The team provided student assessment data and access to team planning sessions for data collection. Team members participated fully in the compilation of reports and in verifying interpretations of the data. With both quantitative and qualitative data sources at work, the findings of this study assisted us in assessing the advantages and limitations of integrated units and in addressing the obstacles to teaming—curricular, assessment, and structural.

FRAMEWORK FOR THIS CASE STUDY

Demands on teachers have increased dramatically in recent years. Teachers are called upon to be surrogate parents, psychologists, career counselors, conflict mediators, health and wellness advisors, social workers and public education ambassadors. There are numerous other roles, none for which teachers are primarily educated in teacher preparation programs. Concurrent with these demands, there is constant pressure for greater student achievement and teacher accountability. This study focuses on a group of teachers who succeeded in a focused curriculum and assessment effort because they were able to flourish in the face of these multiple challenges. Fox's (2000) research on successful teachers and teacher renewal lends insight to the framework for our study. He contends that there are a number of forces at work that influence teacher success and teacher renewal, namely: (a) the teacher's and each student's multiple roles and identities; (b) the established curriculum, the ideal curriculum and all points in between, each viewed from multiple perspectives; (c) the teacher's disciplinary knowledge and instructional theories, processes, and strategies; (d) the contexts in which each of these elements occurs, including those with the school's administration, parents, "standards-bearing" organizations and communities; (e) the intense, direct experiences of everyday life, including those which involve symbols; (f) the teacher's family and financial circumstances; (g) current educational movements; and (h) the larger culture, especially our electronic media environment (Fox, 2000).

To frame this study, we chose to explore several of these forces in relation to Fairdale teachers' professional development and student achievement. To do this, we reviewed the literature on performance tasks, teacher collaboration and school reform. We share a portion of this framework in the following sections.

PERFORMANCE TASKS

In recent years, educators have recognized the inadequacy of multiple-choice tests and have begun to explore and implement better ways to assess student learning. After nearly a decade of thoughtful experimentation with tasks, rubrics, exhibitions and portfolios—and recognition that there is little point to teaching to an ambitious standard if your assessment misses the mark—today's emphasis on standards is moving performance assessment from a "trendy innovation" to an accepted element of good teaching and learning (Wiggins & McTighe, 1998).

The alternative assessment movement has put performance itself at center stage and engages educators in thoughtful conversations, planning and reflection on the relationship of assessment to curriculum and instruction. Those who advocate for reforms that promote "best practices" in classrooms recognize that it has not made sense to view test scores alone as evidence of student "performance." If we want to know what students are truly capable of doing (for example, giving a persuasive speech, solving a quadratic equation, performing a laboratory procedure, or "defending" a research project), then we must ask them to do these things (Wiggins, 1998). Wiggins (1993, 1998) concludes that performance is the key to assessing students' understanding. Designing lessons for understanding begins with what teachers want students to be able to do and proceeds to the evidence teachers accept that they, indeed, have learned it. If teachers begin here, then the next step is, "How will students learn?" In designing curriculum from this "backwards planning" perspective and to successfully teach the curriculum, teachers must now teach in ways that promote clear understanding of what they want their students to know and do.

The Legendary Team planned the "What Happens to the Stuff We Don't Want?" unit with the goal that students would complete a project and presentation that would reflect the following performance task qualities: (a) the application of rich conceptual understandings; (b) student-made decisions using higher order thinking; (c) an authentic and culturally relevant context that actively engages students; (d) multiple approaches and demonstrations of student understanding; (e) access and opportunity for students of various learning styles, achievement levels, and multiple intelligences to successfully accomplish the work; and (f) appropriate uses of technology.

COLLABORATION IN A CULTURE OF INQUIRY

In *Improving Schools from Within*, Roland Barth (1990) advocates that teachers will grow professionally when they are given opportunities to collaboratively design curricular and instructional materials, visit each other's classrooms, share student work through collaborative reflection and assessment and teach each other. Fairdale High School is a member school of the Coalition of Essential Schools and, as such, the Legendary Team has worked intentionally to adopt and reflect a "critical friends" (Costa & Kallick, 1993) model that promotes the structures and interdependence advocated by Barth. Other theoretical labels are used in the research literature to refer to this kind of collaboration or teaming: Garmston, Lindner, and Whitaker (1993) refer to "cognitive coaching"; McLaughlin and Talbert (1994) describe "learning partnerships"; Joyce and Showers (1996) use the term "peer coaching"; Fullan (1993, 1994, 1996) describes a "collaborative teaching" model; and March, Peters, and Adler (1994) refer to "cooperative learning among adults."

In conceiving, planning and implementing the "What Happens to the Stuff We Don't Want?" unit, the Legendary Team considered peer coaching an authentic opportunity to jointly anticipate and identify challenges with the curriculum design, instruction and assessment. This collaboration enabled teachers to jointly devise strategies to engage in firsthand observation, personal feedback, and reflective consultation, thereby strengthening the overall effectiveness of classroom instruction and enhancing the learning experiences of students. Glickman (1993) advocates that this is one of the most essential tasks in the renewal of America's schools.

As is presented in the research literature on a "community of learners" by McLaughlin and Talbert (1994), when teachers were able to sustain improved practice, they did so through partnerships with colleagues. The Legendary Team learned not only with each other during the project but from each other during the implementation, evaluation and post-reflection activities. Teachers on this team were able to take control of instructional reform in the project by teaming to implement classroom practice, providing each other and their students with feedback, making helpful suggestions and "tuning" lessons, informally and formally. Teachers were energized and empowered through their companionship, commiseration and celebration (March et al., 1994) of the activities.

Darling-Hammond (1998) stresses the importance of teacher collaboration that centers on the critical activities of teaching and learning. These should include investigations of practice through teaming, questioning, reflection and analysis. Professional discourse that occurs through such interactions forces analysis and communication about teachers' practices and teachers' values in ways that build collegiality and standards of practice. As a culmination of the unit, the Legendary Team was able to reflect through professional discourse about how students demonstrated ownership of their new learning. For example, the team's essential question, "What Happens to the Stuff We Don't Want?" served as a model for students to develop individual, essential questions and as a vehicle for teachers to determine students' levels of readiness for subsequent planning. If students are to construct much of their own learning in a unit such as that of the Legendary Team, there must be a personalization of learning activities in which students experience success at something they know and follow this with success at something new.

This cycle generates intrinsic motivation to balance the external motivation often exerted by teachers (Peters & March, 1999). Focusing both during and after the culminating activity for the unit encouraged the Legendary Team to reflect on ways in which the assessment drew the unit objectives together, required students to complete and present or perform an authentic or real-world project to demonstrate their mastery, and integrated the team's content areas of mathematics, social studies, science and English in a variety of ways.

Finally, in the Legendary Team's experiences with this project, it became clear that focusing on an approach to inquiry might be viewed as a dynamic rather than a static process. Through its meetings, reflective sessions and follow-up interviews, the Legendary Team found that John Dewey's (1938) views on the process of inquiry are most appropriate:

> The inquiry approach is a systematic and disciplined method for understanding problems, finding and implementing solutions, and assessing their results. It is a process for incorporating values, obtaining information on alternatives, and building on the strengths and talents of staff, parents and students. It is also an approach to testing solutions to see if they work. (Levin, 1991, p. 2)

While it is clear that the development of a culture of inquiry as a result of the experiences of teachers and students on the Legendary Team was good, it does not necessarily mean that all teachers' work at Fairdale High School models a culture of inquiry. Rather, a school in which a culture of inquiry exists is one in which there is a broad, general consensus about the desirability of and need for inquiry as part of all educational processes. This is one of the key school reform challenges and one that the partnership between Fairdale High School and the University of Louisville has dedicated itself to for nearly 12 years. In a Professional Development School that cultivates, supports and models inquiry, teachers, administrators, students and university faculty will all, to varying degrees, participate in the identification and exploration of topics of inquiry (Brubacher, 1993). The Legendary Team's experiences with the inquiry project have given us further pause to consider the importance of this work and how it can be implemented on a school-wide basis. As the authors of the Holmes Group report, *Tomorrow's Schools,* note:

> Inquiry in the Professional Development School should be a way for teachers, administrators, and professors to come together on equal footing. It should help forge a shared professional identity in schools and universities. And it should serve as a professional norm around which collaboration can take place, bringing together the many parties who are concerned for improving schools. (Holmes Group, 1995, p. 60)

SCHOOL REFORM

In addition to bringing educators together around common goals, the PDS process should also help those educators address societal issues that affect teaching and the effectiveness of schools. For example, there are five broad areas in which important and dramatic changes are occurring today in what might be called "21st century literacy." The first concerns democracy and, in particular, a movement toward universal literacy; the second relates to work, with a focus on changing demands for literacy in the workplace; the third takes us to social relations and, especially, the creation of a global society; the fourth concerns language and how languages are evolving; and the fifth is technology, with an emphasis on the way our literary practices are becoming immersed in new technologies (Bruce, 1998). This era of literacy entails not only basic reading and writing but also the ability to use reading and writing skills to solve problems and to communicate complex information. It is necessary for "knowledge work" in an information age (Drucker, 1959). Citizens of the 21st century will need to acquire and apply formal knowledge in ways very different from that required in agricultural, manufacturing and service jobs of the past. They will not be able to get all the information they need from one text or source but will need to integrate knowledge from multiple sources, most likely from electronic resources such as the World Wide Web or its successors. There will be too much information for any given task, which is just the opposite of what has been true in the past. Schools need a "new literacy" as well as methods to assess what it is that students know and are able to do.

Researchers consistently describe how literary and knowledge practices of the future will become highly collaborative enterprises, corresponding to an intensification of emphasis on coordination and communication (Burbules & Callister, 1996). The traditional separations among disciplines of study and types of work are in question, implying the need for more integrated conceptions of literacy, literacy development and cross-curricular inquiry. PDSs provide a framework in which teachers, administrators and professors can come together to address these societal shifts and develop curriculum based on theory that assist all students.

Toward this end, the superintendent, on behalf of Jefferson County Public Schools, recently presented a vision, "Beyond 2000," that sets high academic standards for students to read, write and compute; communicate and listen effectively; think critically and solve problems; apply computer and technology skills; and work cooperatively and resolve conflicts. The guiding framework for these efforts includes ten critical areas of concentration from the vision. A number of these areas of concentration relate to the work of the Legendary Team described in this chapter: (a) literacy and mathematics; (b) graduation standards; (c) knowledge work; (d) professional development; (e) diversity; (f) school climate; (g) use of time; and (h) technology. For example, schools in Jefferson County are being asked to guarantee that every student masters the developmentally appropriate skills in literacy before being promoted or awarded a diploma. Additionally, it is a goal of the district that no students will score in the Novice (the lowest) range in reading and writing on statewide tests by 2012. Further, students will not graduate until they have accomplished predetermined standards and will have increased opportunities to complete higher-level coursework. Students will have to show that they can work cooperatively, speak and listen, think and solve problems, use technology and demonstrate all other skills necessary for life in the 21st century. Teachers are expected to provide all of their students with engaging work that is relevant, compelling, active and meaningful and to recognize and act on a belief that there are no "throw-away" kids (Kohn, 1994, 1996). Students' work should be assessed with appropriate strategies that take into account multiple processes of learning and the development of receptive and productive proficiencies in the domains of listening, speaking, reading, writing and collaborating that are critical for success in the core content areas.

District-wide professional development for teachers is required to relate to a school's 2000–2002 Consolidated School Plan, to focus on literacy and mathematics, and to imbed a philosophy of "an inch wide and a mile deep" (Fairdale High School, 2000). Finally, serving as a foundation for success in any learning community is a commitment to diversity in which students and staff respect one another, multicultural concepts are infused throughout the curriculum, and pedagogy and assessment reflect a focus on rigorous expectations and equity for all. Different uses of time (e.g., block scheduling configurations and methods for quality teaching) are needed, in part, to ensure that teachers meet students' needs and that Fairdale High School students have equitable experiences that challenge and inspire them every day. Since the early 1980s, Fairdale High School has been at the forefront locally and nationally (e.g., The Coalition of Essential Schools) of school reform and PDS initiatives that reflect these commitments. The partnership between the University of Louisville and Fairdale continues to support school reform efforts that will result in increased student achievement and a professional community culture that supports teachers' work.

Additionally, this case study of the Legendary Team and its students has offered opportunities for the PDS to engage in and reflect on methods for teaching writing to integrate writing portfolios into classroom instruction (Kentucky Writing Portfolio Teacher's Handbook, KDE 1999). Often, high stakes assessment, teaming, and PDS, have been thought of as mutually exclusive. However this study shows how the PDS process can support a holistic view of curriculum, instruction, and assessment that can satisfy state requirements and honor best practices. The philosophical goals of writing in portfolio assessment are to: (a) provide students with the skills, knowledge, and confidence necessary to become independent thinkers and writers; (b) promote each student's ability to communicate to a variety of audiences for a variety of purposes; (c) document student performance on various kinds of writing that have developed over time; (d) integrate performance assessment with classroom instruction; and (e) provide information upon which to base ongoing development of a curriculum that is responsive to student needs. Quality writing instruction is anchored in the use of the writing process: pre-writing, drafting, conferencing, revision, editing and publishing. Further, English teachers work not only in their own classrooms but also with colleagues across content areas to assist students in developing writing pieces that may contribute to the portfolio, thereby extending the traditional definitions of "teaming."

Content area writing, then, reflects authentic content and forms produced in the respective field; this writing may evolve in classes other than English. Student research and projects for the team's unit on "What Happens to the Stuff We Don't Want?" are excellent examples of this and sources of assessment evidence in the form of student-generated portfolio pieces.

Finally, the value and importance of the research focus reflected in this chapter relates to the work of Fairdale High School as a PDS school in partnership with U of L. Critical attributes from the draft standards for PDS schools (NCATE Standards Project, 2001) relate to initiatives described in this chapter and have also served as a theoretical foundation for the work we engage in which as a partnership. Historically, these standards have also been consistently supported in U of L faculty's work with local, urban schools by the Nystrand Center of Excellence in Education. The standards that have served as theoretical underpinnings include: (a) learning community—opportunities exist for Fairdale High School and U of L university faculty to develop their knowledge, skills and understandings related to working with diverse students; teaching and learning are collegial; (b) accountability and quality assurance—there is recognition to maintain public accountability and uphold professional standards for teaching and learning; (c) collaboration—participants in the partnership share expertise in the interests of children's learning, and resources are clustered to create new roles, structures and opportunities to learn; (d) diversity and equity—norms and practices support equity and learning by all students and adults; and, (e) structures, resources, and roles—there is an emphasis on enhancing professional practice and a commitment to human resources that support the complex mission of Fairdale High School.

RESULTS

This case study led us to the following summary of our conclusions about teams, integrated curriculum, and performance assessment:

1. Students' motivation to come to school, be active participants, do quality work and to complete work once started is greatly enhanced by well planned and executed team curricula. Student ownership of their work is enhanced and attendance increased when students are given choices and are working on projects that matter to them. Attendance improved two percent during the last six weeks, with several team students who previously had weak attendance records participating fully during this project. While two percent does not intuitively seem like a large increase, to go from 87% to 89% attendance at the end of a school year is a positive and unusual occurrence at schools with a high percentage of students who are placed at risk. In addition, the number of tardies decreased dramatically during this project at a time of year when student "lateness" has traditionally been a problem. The team views the individual success of several students as the most important result of this study.
2. State mandated high stakes assessments and lengthy content area standards make it difficult to plan integrated projects relevant to all subjects simultaneously and to justify the time needed to successfully complete a "real" project.
3. In the best of all situations, teams would share common students and have regular common planning time. When some "non-team" students are included because of scheduling necessities, it is hard for teachers to overlap meaningful activities for everyone.
4. Integrated, performance-oriented demonstrations or exhibitions challenge students who are used to meeting minimum expectations to persist with the work to make it excellent rather than to just "get it done." Student grades increased during this project.
5. Students complete multi-day complex projects at differing times, meaning that alternative lesson plans have to be made for those who

finish "early." Some students were finished with their work two days ahead of classmates leaving a lot of potential "down" time. This presents curricular and classroom management challenges for teachers.

6. Many middle schools are teaming less and using a less integrated project-oriented curriculum approach. This group of tenth graders was not used to the process of teachers using an integrated curriculum approach because they had not experienced it before. Teachers reflected that in the future they would want to spend more time and effort with students at the beginning of the unit teaching process skills to develop organizational, presentation, and research skills.
7. Planning "real world" curriculum requires outside resources and new materials that have to be ordered, planned, and organized. Using the community as the classroom involves coordination, planning and additional financial support for materials, supplies, and field trips.
8. Project-oriented curriculum puts students in an active mode where they must use skills they have acquired across the years in reading, writing, listening, speaking, collaborating, analyzing and interpreting. As projects develop, students who have weaknesses in any area need immediate remediation in order to be successful. This creates time demands on the team and can lead to frustration for students who do not want to push themselves in areas the project requires because they feel "dumb" or ill prepared to accomplish the task. The wide range of student research skills is a prerequisite planning dilemma that must be addressed for projects such as these to be successful.

CAN YOU HOLD MY POSTER?

During our interviews and observations we found that student ownership of their work was enhanced dramatically during this project. For some students, taking work home is risky business. Their work may be taken, damaged or "messed with" on the bus, or they may have no secure place at home to keep it. However, students asked if they could leave work in their classroom in a secure location. One student who rarely completed a project of any kind passionately asked his teacher, "Can you *hold* my poster?" This quote represents the intent of the PDS Standards and the process of reform that asks for us to get students actively involved in their own work and to forge collaborations to make it possible that all students will be successful. To design curriculum so that students care about the work they are doing and to the point that they are worried about how it is stored is a real change from the "drill and kill" approach we have outgrown.

Our conclusions about teaming focus around the following two themes:

1. True teaming is one of the most underused reform strategies. The Fairdale Legendary Team is a bright example of good teachers who are even better because of a team approach.
2. Even for the best teachers, teaming is complex and made even harder by the demands of high stakes assessments, standards and the pressures of working with so many underachieving students.

Although the unit we studied was implemented late in the school year and was surrounded by testing weeks and spring break, there was an excitement, enthusiasm, and sense of purpose that rubbed off on the students, teachers and visitors.

TEACHERS AS INQUIRERS

The Essential Question for this unit was "What Do We Do With the Stuff We Don't Want?" Representative student topics for this unit included:

1. Factory pollution.
2. Body waste.
3. Overcrowding of jails and easy-sentencing of criminals.
4. Animals.
5. Trace wood—leaves from trees destroyed as a result of building and deforestation.
6. Old automobile parts.
7. Junkyard materials.
8. Recycled clothing.
9. Old people and families who don't want them.
10. Appliances.
11. Styrofoam in Jefferson County Public Schools.
12. Medical waste.
13. Confiscated drugs and paraphernalia.
14. Large garbage items.
15. Deceased bodies.

Students were given the following steps to follow in the curriculum process:

1. Decide on inquiry topic, revise if needed.
2. Word process proposal—this is the first piece in the "project file."

3. Narrow down an essential question (our class question: What Happens to Stuff We Don't Want?" and your question).
4. Begin research—action plan.

Teachers developed rubrics for student project presentations (performance levels, 1–4: Expert, Practitioner, Apprentice, and Novice) and for observers to assess the presentations. Samples of those rubrics and teacher notes appear in Figures 1–6.

Visual

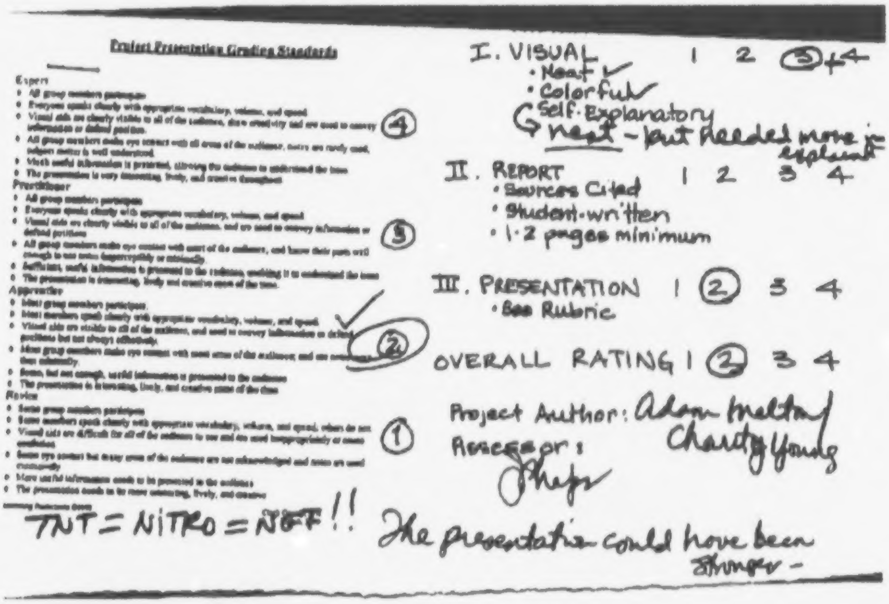
1. Neat
2. Colorful
3. Self-explanatory

Report

4. Sources Cited
5. Student-written
6. 1–2 pages minimum

Presentation (see rubric)

1. OVERALL Rating



Project Presentation Grading Standards

Expert ④

Practitioner ③

Apprentice ✓ ②

Novice ①

TNT = NITRO = NEF!!

I. VISUAL 1 2 [✓ 3]+4
- Neat ✓
- Colorful ✓
- Self-Explanatory

↳ neat - but needed more in explanat

II. REPORT 1 2 3 4
- Sources Cited
- Student-written
- 1-2 pages minimum

III. PRESENTATION 1 [✓ 2] 3 4
- See Rubric

OVERALL RATING 1 [✓ 2] 3 4

Project Author: Adam Maltay
Charity Young
Assessor: Phelps

The presentation could have been stronger -

Figure 11.1. Student project and presentation rubric—example 1.

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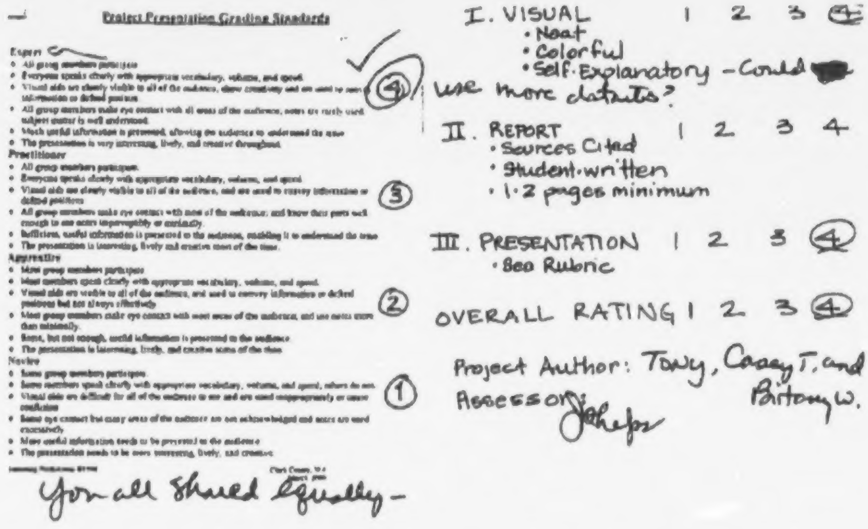

Project Presentation Grading Standards

Expert
- All group members participate
- Everyone speaks clearly with appropriate vocabulary, volume, and speed.
- Visual aids are clearly visible to all of the audience, show creativity and are used to convey information or defend positions
- All group members make eye contact with all areas of the audience, notes are rarely used, subject matter is well understood.
- Much useful information is presented, allowing the audience to understand the issue
- The presentation is very interesting, lively, and creative throughout.

④

Practitioner
- All group members participate.
- Everyone speaks clearly with appropriate vocabulary, volume, and speed.
- Visual aids are clearly visible to all of the audience, and are used to convey information or defend positions
- All group members make eye contact with most of the audience; and know their parts well enough to use notes imperceptibly or confidently.
- Sufficient, useful information is presented to the audience, enabling it to understand the issue
- The presentation is interesting, lively and creative most of the time.

③

Apprentice
- Most group members participate
- Most members speak clearly with appropriate vocabulary, volume, and speed.
- Visual aids are visible to all of the audience, and used to convey information or defend positions but not always effectively
- Most group members make eye contact with most areas of the audience, and use notes more than minimally.
- Some, but not enough, useful information is presented to the audience
- The presentation is interesting, lively, and creative some of the time.

②

Novice
- Some group members participate.
- Some members speak clearly with appropriate vocabulary, volume, and speed, others do not.
- Visual aids are difficult for all of the audience to see and are used inappropriately or cause confusion
- Some eye contact but many areas of the audience are not acknowledged and notes are used excessively
- More useful information needs to be presented to the audience
- The presentation needs to be more interesting, lively, and creative.

①

You all shared equally -

I. VISUAL 1 2 3 [✓ 4]
- Neat
- Colorful
- Self-Explanatory - Could use more data/stats?

II. REPORT 1 2 3 4
- Sources Cited
- Student-written
- 1-2 pages minimum

III. PRESENTATION 1 2 3 [✓ 4]
- See Rubric

OVERALL RATING 1 2 3 [✓ 4]

Project Author: Tony, Casey T. and Britany W.

Assessor:

Figure 11.2. Student project and presentation rubric—example 2.

[illegible] my assessment - I made similar comments

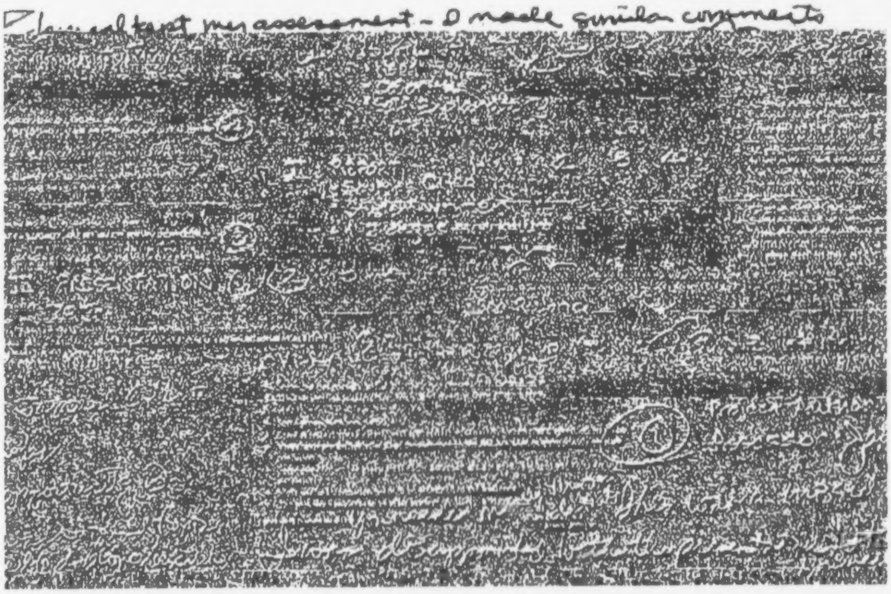

Figure 11.3. Student project and presentation rubric—example 3.

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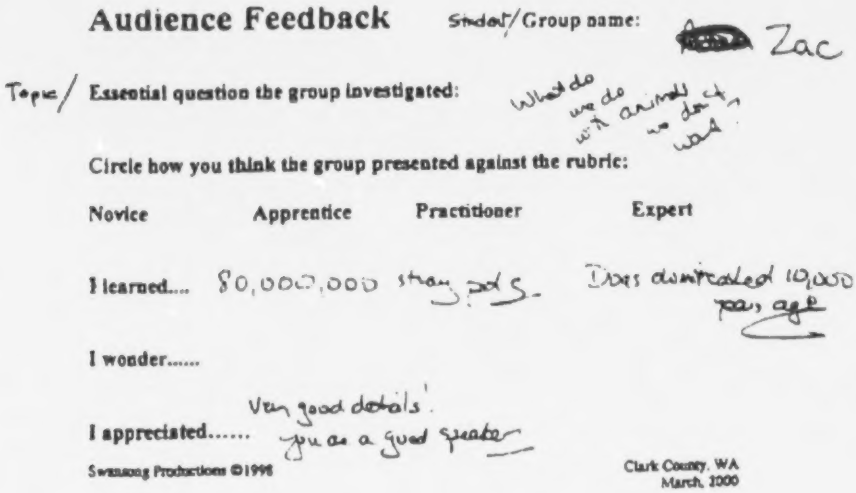

Audience Feedback Student/Group name: [redacted] Zac

Topic/ **Essential question the group investigated:** What do we do with animals we don't want

Circle how you think the group presented against the rubric:

Novice **Apprentice** **Practitioner** **Expert**

I learned.... 80,000,000 stray pets. Dogs [illegible] 10,000 per year

I wonder......

I appreciated...... Very good details! You are a good speaker

Swansong Productions ©1998

Clark County, WA
March, 2000

Figure 11.4. Sample of audience feedback form.

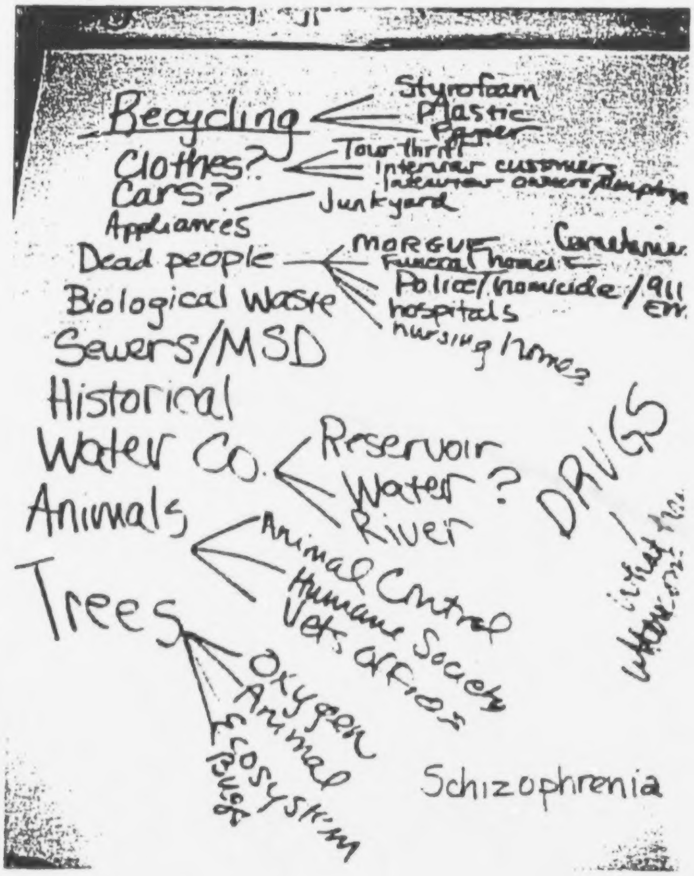
Recycling
Styrofoam
Plastic
Paper
Clothes?
Tour thrift
interview customers
interview owners/employees
Cars?
Junkyard
Appliances
Dead people
MORGUE
Funeral homes
Cemeteries
Police/homicide/911
ER
hospitals
nursing homes
Biological Waste
Sewers/MSD
Historical
Water Co.
Reservoir
Water?
River
DRUGS
Animals
Animal Control
Humane Society
Vets offices
Trees
Oxygen
Animal
Ecosystem
Bugs
Schizophrenia

Figure 11.5. Amy's brainstorming notes with her students.

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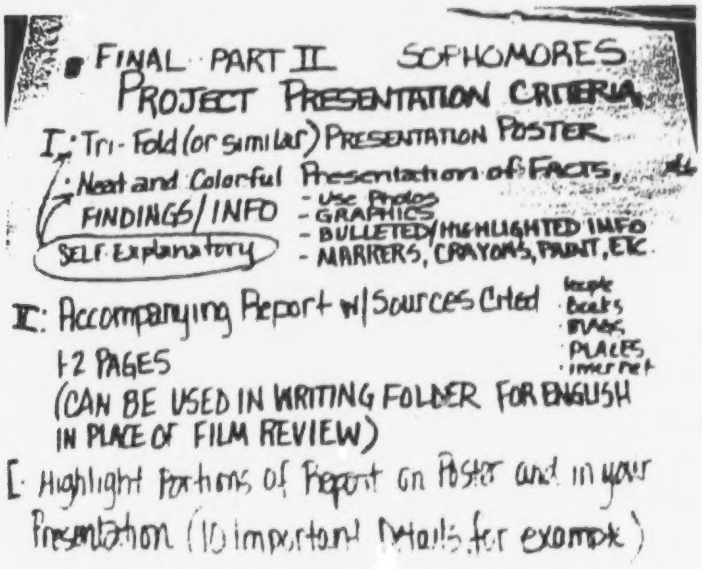

■ FINAL · PART II SOPHOMORES
PROJECT PRESENTATION CRITERIA
I: Tri-Fold (or similar) PRESENTATION POSTER
· Neat and Colorful Presentation of FACTS,
FINDINGS/INFO
- Use Photos
- GRAPHICS
- BULLETED/HIGHLIGHTED INFO
- MARKERS, CRAYONS, PAINT, ETC.
SELF-Explanatory

II: Accompanying Report w/Sources Cited
· People
· Books
· Mags,
· PLACES,
· internet
1-2 PAGES
(CAN BE USED IN WRITING FOLDER FOR ENGLISH
IN PLACE OF FILM REVIEW)
[· Highlight Portions of Report on Poster and in your
Presentation (10 important Details for example)

Figure 11.6. Amy's rubric for the sophomore presentations.

Examples of the student-developed essential questions include:

1. What is gas, how is it formed in trash and where does it end up?
2. After the police take drugs away from criminals, where do they dispose of them?

As was previously described in this chapter, the idea for this unit began as part of the work of the team in interdisciplinary curriculum planning with university content specialists involved. Team members worked together as part of professional development to create a presentation related to their essential question, "What Happens to the Stuff We Don't Want?" They toured the Outer Loop Landfill operated by Waste Management and talked to officials, modeling the very process that they wanted their students to follow. They then created a poster display and a short position paper, presenting them to colleagues and professors from math, science and engineering. Following a presentation to their students, the students then wanted to expand the emphasis beyond the landfill to "stuff we don't want." This reflective component built on inquiry, modeling, and designing engaging curriculum is centered on the metaphor of a teacher as a reflective practitioner and modeling best practices.

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WHAT ELSE DID STUDENTS LEARN?

We have evidence of student learning in the following ways:

1. Teachers on the team reported that students improved in their ability to tackle a research project successfully, including library and Internet research, analyzing data, using community resources and experts, and synthesizing information for a real audience. These skills had been lacking in the sophomores until this project and the team reported that all students had shown improvement in their ability to conduct a research study and resent its results.
2. In the individual content areas, the specific core content concepts taught showed mixed success across the disciplines. The science teacher was satisfied that "real" science was investigated in this project, and he pushed every student to enhance their chemistry component so that key skills and concepts were mastered and then shared. Another teacher imbedded best practices in a writing process in the project, emphasizing form, purpose and audience with intent to present the work. In language arts, teachers were pleased with the results of the unit in terms of research skills and student success but will look to link key concepts in mathematics and social studies more fully in this year's integrated curriculum.
3. Particularly as a year-end effort, all team members were satisfied that student grades were "better" and that more real work was done following spring break than in prior years. Only two students did unsatisfactory work on this project, which is a significantly lower number than in any other major project or unit in the respective content areas during the year.

CONCLUSIONS

Assume for a moment that the critics are right about the sorry state of American education. Given that the evidence overwhelmingly shows that our schools remain very traditional, it's rather difficult for a fair-minded person to blame the problem on progressive "fads," which are actually rare. In fact, it may be the continued reliance on traditional practices that helps to explain why students aren't doing better (Kohn, 2000).

As the testing relies more and more on items with high scoring reliability, it is less likely that [the state tests] will "drive" teaching and learning toward constructivist, performance-based classrooms (Jones & Whitford, 1997).

A summary of our findings in this study are that student attendance and student grades improved as a result of a late-in-the-year integrated curriculum project of the tenth grade Legendary Team at Fairdale High School. Behind that data, however, are the researchers' hope and fear. Our hope is that the success of the Legendary Team experience can be rekindled this year in more integrated units and spread throughout Fairdale High School and the PDS partnership. Our fear is that because of: (a) the time demands on excellent teachers inside and outside the classroom, (b) the excessive and exhausting demands of preparing students for high stakes assessments that do not emphasize integrated curricular approaches, and (c) scheduling and other structural barriers that discourage teaming, teachers will continue to be distracted from the mission of helping all students succeed and in working together as colleagues to make that happen.

Can PDSs help change the system that has moved us away from reform-based innovation, particularly the pressures of high stakes assessments to "stop, drop and test" as the predominant curricular model? While PDSs cannot control state mandates or the many processes of large school districts, our PDS relationship has been able to create unique opportunities to support teaming and teacher invention. There are 12 graduates of the masters program on the current faculty who have been chosen and who have chosen to stay at Fairdale and be part of the collaboration. The entire staff has participated in professional development and collaborative projects co-facilitated by school and university colleagues. The Legendary Team is made up of graduates of our program who share a common vision and language of high expectations and student-centered approaches. Collaborative grants enabled by the partnership provide opportunities for additional expertise to be available in the content areas, additional teaching resources to be provided (critical for "hands-on" learning), and for support to study the success of curriculum innovations. And, the team employs pre-student teachers and student teachers to increase their ability to personalize classroom instruction and support project-based learning.

If PDSs works, our partnership will sustain the creative energy amongst students, new and experienced teachers, teacher educators, administrators and the school community to support best practices. We will be able to overcome the tendency in schools with a high number of underachieving students to focus on short-term strategies to show immediate state test result gains while forgoing the knowledge base about teaching, learning, curriculum design, real change, school reform and authentic student achievement. Our ability to link the four goals of PDSs with a focus on student achievement, teacher professional development, inquiry, and exemplary teacher education placements as the foundation of the partnership has enabled us to be in a unique situation to nourish the momentum to anticipate significant change.[1]

NOTE

1. The researchers would like to thank the Legendary Team members for their open access to the team and to Fairdale students for purposes of this study. Our professional association with these outstanding colleagues and the other faculty, staff and community of Fairdale High School enriches our lives and our work.

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CHAPTER 12

PRINCIPALS AS A LEARNING COMMUNITY

A Case Study

William Malloy

ABSTRACT

A learning community refers to processes and relationships among members of a group that enable an entire community to learn and grow. These processes and relationships involve inquiry, dialogue, reflection, and action. This case study suggests that the Professional Development Schools (PDS) model, a K–12 school reform and teacher education revitalization initiative, is an excellent vehicle for enabling a learning community of school administrators to flourish. More specifically, this case study illustrates how a learning community was created for a group of principals as a result of a system wide PDS reform initiative.

INTRODUCTION

Mitchell, Sackney, and Walker (1997) suggest that postmodern organizations will be driven by processes and relationships rather than structures and rules. Verbal communications will be the chief vehicle for creating individual meaning and organizational change. Perhaps one of the most viable strategies for creating and sustaining these conversations is through the learning community concept. According to Lambert, Collay, Dietz, Kent, and Richert (1997), a learning community refers to the processes and relationships among members that enable the entire community to learn and grow. These processes and relationships involve inquiry, dialogue, reflection, and action (Hord, 1997; Senge, 1990).

In education, this learning community concept has been applied to teachers and principals in individual school sites. This process, according to Cushman (1996), gains critical support for change efforts related to restructuring by involving the entire faculty in finding solutions to educational challenges. Although this process has implications for various instructional and administrative personnel, the main focus has been on teachers functioning in a learning community (Lieberman, 1990; Little & Mclaughin, 1993). The purpose of this case study was to examine the extent to which the learning community process could be of utility to an entire group of principals in a rural district undergoing system wide restructuring through the Professional Development School (PDS) reform model. This case study focused on the extent to which the five conditions of a learning community suggested by Seashore-Louis, Kruse, and Raywid (1996) could be applied to a group of principals. Those five conditions are as follows: (1) shared norms and values, (2) reflective dialogue, (3) deprivitization of practice, (4) collective focus on student learning, and (5) collaboration.

Prior to the discussion of the study, it may prove helpful to review the current perspective of learning community in education and explore its potential for administrators. The PDS initiative serves as the reform initiative in which this learning community thrives, so a brief overview of this concept and its potential for supporting a learning community is also shared.

LEARNING COMMUNITY

The learning community concept is not a new paradigm. However, over the years this concept has been referred to such labels as; learning organization, professional community, and community of learners.

Current Perspective

Applications of the learning community concept have been in the business world for decades. In fact, the term learning community, as we know it in education, is an adaptation of the term "learning organization" used to describe the process in business enterprises. Senge (1990) defines learning organizations as "organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continuously learning how to learn together" (p. 3). Other scholars have given considerable attention to the culture of the workplace and the value of communications (Block, 1993; Ghoshal & Bartlett, 1995). In fact, in his 1993 book *The Post-Capitalist Society*, Drucker writes during the 1990s, that knowledge will be the major factor of production. He adds that we are living in a post-capitalist knowledge society in which all organizations, including education, have become organizations of knowledge specialists that cannot be managed through the traditional hierarchical structures.

Educators have long understood and appreciated the value of having schools organized as centers of inquiry (Schaefer, 1967). However, increased attention is being given to school restructuring that encourages meaningful participation of the teachers (Fullan, 1995). This need for meaningful participation has heightened educators' awareness of the potential of the learning community in restructuring efforts. Scholars contend that the development of a learning community in which teachers and administrators expand their knowledge is paramount to any sustained efforts of school reform (Fullan, 1993). Issues of instructional efficacy, collaboration, and supportive leadership have emerged as key factors in efforts to adopt a learning community as a part of restructuring. This case study examines the extent to which a group of principals functioning as a learning community may enhance the supportive leadership aspect.

SUPPORTIVE LEADERSHIP

It is in the area of supportive leadership that the role of the principal is perceived as having a significant impact on developing a learning community. The principal energizes the learning community concept through sustained efforts to facilitate the inquiry of teachers (Barth, 1990; Schaefer, 1967). The study conducted by Leithwood, Leonard, and Sharratt (1998) provides empirical evidence to support the importance of the principal's leadership role in the community of learners process. According to their research, successful learning communities have principals that provide appropriate role models, individualized support, intellectual stimulation, and foster acceptance of group goals. These findings underscore the importance of the principal supporting and participating in the learning community of the school. Principals that remain actively engaged in the process are constantly in a position to participate in collective reevaluations of fundamental assumptions used to educate children (Peterson

1988). In essence, Kleine-Kracht (1993) asserts that the role of the principal in a learning community demands that the principal must facilitate and model the learning of others.

It seems very apparent that the principal contributes greatly to the development of the school as a learning environment. With the principal's support, both the teachers and principal derive immeasurable benefits from continuous learning. Unfortunately, a school-based learning community does not completely satisfy the principal's need for sustained discussions about the practice of administration. It is within this realm that the learning community approach would appear to hold great value for administrators, unfortunately, there is little documentation of efforts to organize a group of principals into a learning community.

A LEARNING COMMUNITY OF PRINCIPALS

The learning community approach creates opportunities for administrators to benefit from the collective knowledge of a diverse group of leaders, and to enhance horizontal communication between units (Rousseau, 1997). This approach minimizes the risk involved with change efforts associated with restructuring. As Colin and Lakomski (1997) assert, "in organizational theory, however, it has long been recognized that risk spreading is far more beneficial for the organization's growth and continuance over time" (p. 71). This risk spreading is essential for the survival of principals in contemporary educational settings. Why? Administrators are constantly being pulled upward to accommodate state and district mandates and downward toward the demands of teachers, students, and parents (Hannaway & Crowson, 1989; Stevenson, 1993). For example, Mueller (1996) conducted a study of principals and superintendents and found that they encounter a major dilemma related to loyalty and to steering (i.e., federal regulations, state mandates, and local policies). Both principals and superintendents participating in the study were concerned about the continual development of their competency while reverberating within this dilemma. In sum, they supported and understood the importance of reflection; however, in practice they were constantly drawn to the expediency of ad hoc problem solving as a result of issues needing immediate resolution.

Mueller's work is important to understanding the need for a learning community approach for administrators because the steering versus loyalty dilemma promotes status quo administration and tends to keep principals operating in a vacuum. This situation is exacerbated through the spirit of decentralization rhetoric which continues to frustrate middle managers with the constraints of deep-rooted centralization. However, the process of addressing the challenges of dilemmas should not be foreign territory to administrators (Jacobson, Hickcox, & Stevenson, 1996). Engaging in this process does not have to be a solitary activity in which a principal feels "up against the world." The learning community process can provide administrators with another option for addressing dilemmas of all sorts. Colin and Lakomski (1997) suggest that the knowledge we acquire, depending on the circumstances, could be fallible. They further assert that error is always possible and we need to create structures inside organizations that facilitate the double-checking of decision making. When these structures are not in place, ambiguity may distort principals' decisions related to what they think they should be doing and what they are actually doing. To avoid the ambiguity of this mismatch, principals frequently make decisions, without the benefit of the group process, in an attempt to "play it safe," rather than pursue what is appropriate. Diminishing the tendency to resolve major dilemmas in isolation according to Burns (1978), requires that leaders, superintendents, create opportunities that empower followers to individually and collectively examine their motives. More specifically, organizational learning requires that the members create opportunities to share learning, develop common understandings, and use the knowledge in a manner that benefits the direction of the organization (Goodman & Darr, 1996; Lyles & Schwenk, 1992).

PROFESSIONAL DEVELOPMENT SCHOOLS

Background

The PDS initiative was one of many responses to the call for school reform fostered by the report *A Nation at Risk.* More specifically, the idea of Professional Development Schools, spearheaded by the Holmes Group PDS Model, appeared in the literature as a potentially significant reform model for K–12 school reform and teacher education revitalization (Abdal-Haqq, 1998). The Holmes Group (1990), defined PDS as "a school for the development of novice professionals, for continuing development of experienced professionals, and for research and development of the teaching profession" (p. 1). In constructing the PDS concept, the Holmes group used six guiding principles: (1) active exploratory teaching; (2) creating a learning community of teachers, students, staff, and parents; (3) overcoming educational and social barriers by teaching and learning for everybody's children; (4) continuing learning by teachers, teacher educators, and administrators; (5) thoughtful, long-term inquiry into teaching and learning by school and university faculty working as partners; and (6) inventing a different kind of organizational structure for schools that initiates profound changes and can be supported over time.

Current Status

The six guiding principles have emerged in the research of leading scholars within the PDS movement. For example, PDS redefined collaboration by focusing more on school's need to improve student achievement and less by the university's need for research (Metcalf-Turner & Fischetti, 1996; Wagner, 1998). Additionally, Mantle-Bromley (1998) found that PDS participants considered themselves in a process of continual improvement where they respectfully challenged and supported one another. Also, successful PDS partnerships focused their attention on four areas: structure, process, substance and fundamental values, and educational beliefs.

PDS and Learning Community

The focus of this study relates directly to two of the guiding principles (1) creating a learning community of teachers, teacher educators, students, staff, and parents and (2) continuing learning by teachers, teacher educators, and administrators. Most PDS initiatives have used these principles to shape the direction of teachers and teacher educators. The involvement of administrators has been more facilitative from a school-based perspective.

Creating a continuing learning environment through the establishment of learning community for principals on a system wide perspective has not been extensively explored. If reform initiatives are to experience sustained success, the two principles must have a greater direct impact upon principals because they are the key figures in shaping a school's culture to provide surface responses or measured approaches to the call for school reform. According to Murrell (1998), PDS programs may be inadequate and ineffective because they are not designed to question the underlying political questions and sociocultural dynamics that produce inequalities in schools. This criticism is supported by Fullan, Galluzzo, Morris, and Watson (1998), who suggest most reforms are driven by a small group of innovators who were unable to impact district-wide reform over a sustained period of time.

Principals have been encouraged to operate independently as a result of training, site-based management, and high stakes accountability. It is no mystery, given this isolationist direction, that many reform initiatives experience uneven success. If there is to be real systemic change, principals must be given opportunities to learn and grow together while addressing these changes. This case study illustrates how a system wide PDS initiative enabled principals to create a learning community that encouraged them to grow professionally while simultaneously addressing systemic challenges related to serving at-risk students.

Objective of Case Study

The objective of this case study was to examine the extent to which the learning community concept could be of utility to an entire group of principals in a rural school district undergoing system wide restructuring through the PDS model of reform.

To accomplish this objective, a set of five conditions for a learning community suggested by Seashore-Louis et al. (1996) was used to determine if the interaction of this group of principals could be certified as a learning community. The following five conditions were suggested as necessary to create a learning community:

1. Shared norms and values: members of the community affirm through language and action their common assumptions about children.
2. Reflective dialogue: reflection promotes awareness of practice and its consequences.
3. Deprivitization of practice: commitment to practicing a craft in public ways through sharing and trading roles of mentor, advisor, or specialist when aiding and receiving assistance from peers.
4. Collective focus on student learning: discussion and action center on students' opportunities to learn and seek to enhance student benefits.
5. Collaboration: collaboration is fostered by and is a natural outgrowth of reflective dialogue and deprivitized practice. Collaborative efforts enhance shared understandings and reinforce the mosaic of relationships within the school.

Study Design

In 1995, the University of North Carolina at Chapel Hill, through its School of Education (SOE) embarked upon an ambitious initiative related to Professional Development Schools (PDS).

This initiative focused on four single sites and one district-wide project. The site of this study was a district-wide effort that involved all 14-school sites within the district. What is unique about this project is the emphasis on a system wide PDS initiative, which has been uncharacteristic of PDS projects from a national perspective.

Under a mutual formal agreement, the SOE and the Piedmont County School District agreed to become partners in a district-wide PDS initiative that began during the 1996–97 school year. This partnership was created to address the educational services needed by children who failed to reach their academic potential, exhibited poor attendance patterns, possessed language differences that serve as impediments to academic progress, and/or were prone to frequent episodes of violent behavior. Data collected from various sources in the district illustrated that these four challenges were of priority importance for the Piedmont School District.

The partnership shaped the focus of its activities around three main components of collaboration:

1. Develop and implement a case management program to address the multiple needs and concerns for children that present challenges during the formative years of elementary school.
2. Create in-service programs that address the need for effective instructional programs for children whose needs go beyond traditional methods of instruction.
3. Create and maintain an Administrators Forum to strengthen various aspects of leadership needed to direct building-based educational programs for children who present challenges in the four priority areas.

All three components of collaboration were integrated within the common theme of resolving home/school problems through diversified instructional strategies and supportive services. Each component was headed by a coordinator from the district and a coordinator from the university and functioned under a specific set of operational guidelines, research objectives, and evaluation indices. This case study addresses the activities associated only with the Administrators Forum.

Site Description

This case study was initiated with the full support and encouragement of superintendent and staff of the Piedmont County School District. The district is composed of 14 schools that include three high schools, two middle schools, four K–8 schools, and five elementary schools. Student enrollment is 6,678 and the racial composition is 66% Euro-American, 27% African-American, and 7% Hispanic. The district contains one of the fastest growing Hispanic populations in the surrounding area. According to records from the North Carolina Department of Instruction, the district-wide achievement scores are at or above the statewide averages for reading, mathematics, writing, and end-of-course tests at the high school level. As is true with all districts in North Carolina, the performance of minority children reveals disproportionate numbers lagging behind the statewide averages.

Economically, the district is considered a low-wealth district based on statewide measurements. It is a rural district with the southern portion of the county's tax base embedded in agriculture and light industry that thrives in this type economy (i.e., poultry processing, and produce marketing). It is in this portion of the county that the living standard is at or slightly above the poverty level, due to the low wages of migrant and other unskilled labor. In contrast, the northern portion of the county is quickly becoming a bedroom community for employees in the nearby high technology industry and an upper income retirement community. The district has two distinctly different SES student populations to serve. There are, unfortunately, relatively few resources as a result of a tax base that is disproportionately affected by the larger southern portion of the county having depressed resources and more needy children.

METHODOLOGY

The question of this research is best addressed by qualitative case study because it provides ample opportunities for rich description of specific activities (Merriam, 1988). To be able to tell a good story, one has to get others to tell their stories fully and well. Questions have to be asked and clarifications sought that indicate that the story has engaged the reader. In case studies, this always takes place within somewhat strict bounds (Merriam, 1988). While all qualitative research is purposive (Patton, 1990), case studies are especially so.

The design of our case study facilitates telling stories of how a group of principals functioned as a learning community through two actions. First, the case study was a collaborative effort between the principals and the investigator. Previous attempts to have principals meet apart from central office administrators were not successful because they were structured by the superintendent's agenda and became another variation of a leadership team meeting. With the advent of the Administrators Forum, the principals wanted to be in full control of Forum activities and to have the activities chronicled for evaluating the growth of the group into a learning community. Second, the superintendent, in an effort to illustrate "good faith," insisted that all activities of the Forum would be shaped by a steering committee of principals. Furthermore, the superintendent felt that if this was truly going to be the principals' meeting, he should not attend. These actions created an atmosphere for the principals to have open discussions.

Data Sources

Steering Committee. The steering committee comprised five principals and the research team. The research team for the Steering Committee and the Administrators Forum included the district coordinator, university coordinator/principle investigator and three doctoral level graduate assistants majoring in educational leadership during the three years the Forum has been in existence. The steering committee was charged with identifying areas of discussion for each Forum meeting, providing directions for shaping investigators' collaborative research activities related to needs of principals, and eventually serving as a liaison between the principals and the superintendent regarding the direction of form activities.

Administrators Forum. This Forum comprises principals representing the fourteen schools in the district. These fourteen schools are divided into three high schools, two middle schools, four K–8 schools, and five elementary schools. During the 1996–98 school years, three of the principals were Euro-American females, two were African-American males and the remaining nine were Euro-American males. During the 1998–99 school year, there were four Euro-American females, one African-American female, one African-American male, and eight Euro-American males. Eleven of the current principals have served as building administrators for a minimum of five years. The remaining three administrators, two Euro-American females, and one African-American female, have served as administrators for three years or less. All administrators have a master's degrees and several have begun work on the doctorate in educational leadership.

Between October 1996 and April 1999, there were a total of sixteen Administrators Forum meetings and eighteen Steering Committee meetings. The Steering Committee meetings are one to two hours in duration and the Forum meetings are entire day retreats. Additionally, the investigator and graduate student(s) frequently meet with principals individually in the interest of some data collection needed for a Forum research project or to discuss other topics associated with Forum activities. In sum, the total hours of Forum activities devoted to this research project totals approximately five hundred hours over a twenty-seven-month period.

Data Collection

Descriptive and interpretive case studies typically use observations, interviewing, and document reviews as the major data collection techniques. Surveys could also have been used, however, the nature of this case study did not suggest that surveys would be more illuminating than observations and interviews.

Observations and interviews were the primary data collection techniques to elicit the multiple perspectives that the principals hold regarding the activities of the Administrators Forum. We believe that all social scenes are cultural performances (Turner, 1969) and would argue that observing and interviewing are complex social interactions that facilitate close attention to issues being raised, how they are addressed (nonverbal actions as well as what is said), and the situational dynamics that create the conversations related to reflective practice.

Observations. The key strategy for collecting data was through observations. The observations were conducted during the Steering Committee meetings, Administrators Forum meetings and individual meetings with principals, superintendent, and central office personnel. Observations focused on crystallization of ideas, exchanging technical assistance, assessing the political climate related to restructuring, creating supportive alliances, and establishing a research agenda to support and/or enhance program development initiatives.

Interviews. There were two levels of interviews: informal and focus group. The informal interviews were purposely unstructured for two reasons. This direction was taken to avoid the steering effect that interview questions may sometimes promote. The researchers were more interested in what was "on the minds" of the Forum members related to Forum activities associated with the system wide restructuring effort. These informal interview discussions took place during Forum meeting breaks, telephone conversations, and school visitations. There were several focus group interviews. The first was to identify the priorities of the Forum. The second was to gather information related to evaluation of Forum activities.

Document Reviews. Data related to district-wide performance on state accountability measures for reading, mathematics, writing, and end-of-course testing were reviewed. These data provided the frame of reference from which to launch discussions related to the extent to which children who presented educational challenges were identified and served on a priority basis.

Subsequent to the standardized data review, the research team reviewed documents generated by the Forum related to Forum minutes and individual school reports on efforts to serve children with educational challenges. Additional information reviewed was provided by invited presenters on topics related to tutorial programs, case management techniques, and student transitions through educational levels.

The research team reviewed and shared data related to local and national programs designed to serve children who present educational challenges, strategies for reflection by administrators, and concepts of the learning community approach. Additionally, the team reviewed district and building level communications related to serving children who presented educational challenges.

Data Analysis

In general, we analyzed the data by a process of qualitative, thematic identification strategies that emerged from the steering committee meetings, Forum meetings, focus group interviews, and informal discussions with the Forum participants (Miles & Huberman, 1994). More specifically, themes were identified and placed in separate categories in concert with the five conditions for a learning community: shared norms and values, reflective dialogue, deprivitization of practice, collective focus on student learning and collaboration (Seashore-Louis et al., 1996). The process of triangulation was used to assess the degree of theme convergence, inconsistency, or contradiction as a result of the individual examination of themes (Mathison, 1988). In essence, the internal validity of the study was established through three data analysis strategies: (a) host verification or "member checks," which were verified through approval of minutes, establishment of meeting agenda, and meeting debriefings; (b) triangulation, using multiple sources of data for verification; and (c) "phenomenon recognition," where the research team's sense of reality was presented to the steering committee who live the reality and were in a position to judge the team's interpretation of Forum activities.

Consistent with the flexibility needed to conduct descriptive and interpretive case studies, the original intent of one general data analysis was replaced with two levels of data analysis as data were analyzed. This change was necessary due to the nature of the data collected from two different perspectives related to Steering Committee and Administrators Forum Meetings.

Steering Committee. The first phase of the data analysis was conducted on data generated from the Steering Committee. Findings from the focus group meetings and discussions related to establishing meeting agenda were used as a basis for shaping themes. The rich discourse during these meetings provided ample opportunities for the research team to realign, remove, or reinterpret the themes identified during the previous general meetings of the Forum.

Administrators Forum. The second phase of the data analysis was based on data gleaned from the general meetings. These general meetings were the keystones of the data gathering process, and it was within the framework of these meetings, through observations and informal discussions, that the research team was able to move selected elements of the discourse into the five conditions of a learning community. This process provided the research team with the opportunity to shape a composite picture of theme convergence, divergence, inconsistency, or contradiction.

FINDINGS

The objective of this case study was to examine the extent to which the learning organization (i.e., community concept) could be of utility to an entire group of principals in a rural school district undergoing system wide reform. In order to accomplish this objective, a set of five conditions for a learning community, as articulated by Seashore-Louis et al. (1996), was used to determine if the activities of this group of principals exemplify a learning community. Findings from this study will be portrayed according to these five conditions, which are follows:

1. Shared norms.
2. Reflective dialogue.
3. Deprivitization of practice.
4. Collective focus on student learning.
5. Collaboration.

Shared Norms and Values

In order to satisfy the parameters of this condition, the members of a community affirm through language and action their common assumptions about children. This is no small task given that principals' individual assumptions about educating children are seldom debated in an open Forum with peers. If the Administrators Forum had any hope of being successful, assumptions from all principals must honestly emerge so that a negotiated reality could be attained.

The structure of the Forum provided the atmosphere in which to honestly develop shared norms. How was this achieved? This case study suggests that an atmosphere of trust, essential for sharing norms, was created by the following factors: (a) the superintendent's insistence that he not be an official member of the Forum neutralized the traditional competitive atmosphere between principals related to state and local accountability measures and facilitated an increased spirit of colleaguiality; and (b) the recognition by the principals that, as a group, they needed to celebrate their successes.

Traditional hierarchical administrative structures in educational units provide an awesome impediment to the sharing of norms. These structures tend to create a competitive atmosphere in which each principal wants to "look good" for the superintendent. Leadership team meetings are not designed to explore philosophical positions on education. These meetings operate in the form of accountability measures to determine the extent to which progress is being made in accordance with district goals and policy, state legislation, and federal regulations. The strength of the trusting nature of the Forum is revealed in the superintendent's statement, "I believe it is healthy for the principals to have meetings without the superintendent. I trust them to shape these meetings into sharing best practices rather than gripe sessions." Principals appreciation of this gesture was best captured by one principal's comment at the second Forum meeting: "I believe that our superintendent's willingness to not participate in these meetings provides a golden opportunity for us to engage in discussions about what we think is best for kids." Another principal reinforced this notion by indicating, "We tried meeting like this in the past but the meetings ended up being another form of administrative team meetings because the previous superintendent always set the agenda."

Perhaps, one of the most significant aspects of the Forum was the opportunities it presented for principals to celebrate their successes. A portion of each of the sixteen Forum meetings was devoted to discussions of "what's working." These conversations created a frame of reference for shared norms by providing a common benchmark for evaluating the success of certain programs. These "how do you measure success" sessions provided ample opportunities for individual interpretations of program efficacy to emerge. The importance of the conversations was best amplified by one principal's comment that "these discussions are helpful to me because sometimes I do not know if I am on the right track or not in operating this program." Given the reality that public education is constantly being criticized, the Forum provided opportunities for the principals to gather information needed to present to the public about what the schools are doing from a positive perspective.

The research team reviewed the agenda and field notes of all the Forum meetings in order to identify the stages in which the sharing of norms and values progressed from the safe to the sensitive issues. Over the three-year period a pattern for the discussions become apparent.

Items discussed the first year were focused on what Conley (1993) identified as the supporting and enabling variables of restructuring. These variables were governance, school-community relationships, technology, and learning environment. These areas provided opportunities for sharing insights and philosophies on safe subjects that did little to ignite passion. However, these discussions did facilitate the emergence of one value: all Forum actions must be educationally sound rather than politically motivated. Consequently, any supplemental money that was available to the Forum for school-based services would be spent according to collective desires of the group. This was a tremendous breakthrough for a group of individuals who have been conditioned to compete with one another. The significance of this action was captured by a middle school principal who stated, "Let's not fight over this pot of money. Let's decide whose school has the least instructional resources and the most needy kids, and let's put the money there." All meeting participants agreed and this action was initiated as a standard operating procedure.

In the second year, the group began to tackle what Conley (1993) referred to as the central variables of restructuring (i.e., learner outcomes, curriculum, instruction, and student assessment). Large portions of meeting discussions were devoted to how to replicate instructionally effective programs. As one principal noted, "Some teachers are more effective than others in educating certain children. How can we spread this knowledge around?" Other principals shared feelings about how their schools address needs of at-risk students but had concerns about students' needs being met at the next level. In sum, during the second year of the Forum, the realities and the expectations of the system wide instructional program emerged through discussions. These discussions exposed values, created clashes in philosophies, and were resolved through negotiated realities that heightened the principal's desires to improve instructional services throughout the district. For the first time, principals were able to adopt a unified position on a major instructional priority for certain children. That priority was the need to improve instruction for at-risk students through structured transition programs.

The third year of the Forum built upon the momentum gained the second year by focusing on what should schools do to prepare students to transition from one level to the next (i.e., elementary to secondary). What was most interesting about these discussions was the high degree of passion exhibited in converse to the dispassionate tone of the initial meetings of the Forum during the first year of operation. The focus of these lively discussions related to what type services at-risk students were currently receiving and could they expect similar services at the next level. For example, elementary school programs exhibit a very caring approach to the provision of service, while secondary schools provide services within the less than embracing nature of the large school setting. The interchange between the levels of principals was intense, thought-provoking, and challenging. Emerging from these enlightening conversations was an agreement among the group captured in one principal's statement, "If we want our most vulnerable students to succeed, we must prepare for their success." It was evident to the research team that, as the planning for transitional programming developed, etched throughout this plan were the collective values of principals committed to a seamless stream of services for the at-risk priority students.

Reflective Dialogue

It is in the area of reflection that the research team suggests that the Forum provided great benefits. The principalship is sometimes a lonely position; a position where staff traditionally has been indoctrinated to believe that leadership comes from the top and seldom from the "center." Consequently, many principals are placed in a position of feeling vulnerable if they do not know the answer or seek information about a crucial decision they must make. The Forum provided an opportunity for principals to reflect upon their practice for the future, past, and present.

In reflection-*for*-practice (i.e., future action), the principals used the Forum to discuss such areas as planning a proposed change or preparing to address a vexing challenge. Throughout the three years of Forum operation, principals were concerned with how to create an atmosphere for change related to central office directives and state mandates within a site-based management structure. The Forum provided opportunities for the principals to use Forum members as a "sounding" board for new ideas. Typically this process might start with the exclamation from a principal related to, "I am attempting to make this change in my building, I would like to get your thoughts." Or, perhaps, a session on reflection-*for*-practice might be initiated with the following comment, "Who has started working on the alternatives to social promotion?"

What surfaced through observations and informal conversations was the principals' gradual reliance on the Forum meetings to "test the waters." After the first year of Forum operation, principals' reliance became evident as reflected in such comments as, "I have been saving this issue for the Forum," or, "I attended a meeting earlier this week and an issue surfaced that may affect us." Another aspect of this reliance was the new principals eagerness to participate in dialogue on planning and procedural matters that involved some element of risk taking. Through the research team's informal discussions with new principals, the general sentiment was that the Forum provided them with ample opportunities to understand, challenge, review, and change "how things should get done around here." This idea of reflection for practice became a central theme because it involved an element of risk-taking, induction for neophyte administrators, and a means of reinforcement.

In reflection-*on*-practice (i.e., previous action), the Forum expanded opportunities to share views on the evaluation of selected programs and strategies needed to support the new initiatives within existing resource allocations. This aspect of the Forum proved to be extremely valuable when the principals were asked to support another component of the PDS initiative related to a case management, early intervention program. The district, under the banner of the PDS, had initiated several case management pilot project sites at the elementary school level. The principals at the other sites were apprehensive about requesting similar services because they had not been involved in the planning phase, and they felt that the addition of an unproven pilot program would only serve to irritate an already overworked staff. However, upon hearing from peers how successful the program was operating in the pilot sites, the principals acknowledged that success by voluntarily adopting the case management project as a primary intervention model to serve priority children. In fact, during the first year of Forum operation, members unanimously voted that all funds designated for Forum use be spent to initiate another pilot project at the most needy elementary site. Under normal circumstances, the principals might have been informed of the success of the program in a leadership team meeting and would not have asked the kind of questions they needed to ask for fear of creating a defensive attitude on the part of the central office staff who originated the idea.

In another instance related to conserving scarce resources, at every Forum meeting there were discussions about how the members of the Forum were to address certain (bilingual and special education) challenges without additional staff allocations. During these discussions, various building specific strategies emerged that provided principals with sufficient information on which to create variations on the themes. For example, there were discussions related to the staffing of non-traditional, in-school suspension programs that focused on remediation and improvement of interpersonal communication skills. This type program needed staff members that had a track record of instructional effectiveness with at-risk students and a desire to teach in programs that are not known for having positive images. Attracting staff to this type of clinical situation can prove a daunting task. Discussions related to staffing proved very helpful because principals produced novel ways to recruit appropriate staff (i.e., funds for professional growth, additional planning time, reduced class load, etc.). In summary, the Forum, through reflections on practice, served as an informal mechanism for generating discussions about program evaluation and how best to use scarce resources from a district-wide perspective.

Within the area of reflection-*in*-practice (i.e., present action), principals shared information about selected aspects of their daily operations and reviewed coordination concerns related to transportation, transition, volunteerism, and after-school programs. This particular aspect of reflection in the Forum also proved to be a valuable tool for the superintendent. When the superintendent initiated new policies, the Forum, through the steering committee was able to provide immediate feedback from a district-wide perspective. Prior to the initiation of the Forum, when new district policies were implemented, the principals adopted a "wait and see what happens" rather than sharing immediate views when solicited in leadership team meetings. Over the three-year tenure of the Forum, the superintendent appreciated the Forum position on certain policies because it represented collective thought rather than individual perceptions.

Perhaps the most significant aspects of reflection-*in*-practice were the frequency of requests for information. Throughout the three-year history of the Forum, principals constantly requested data. These data requests related to detailed information concerning the budget, implementation of certain instructional programs, and coordination of ancillary services. The budget information was based on current needs that could be forged into a priority list to be presented to the superintendent. In the past, each building operated as a separate unit when projecting budgetary needs. Reflective dialogue generated at Forum meetings encouraged principals to think more about the needs of the system rather than individual needs of the schools. Data generated regarding the efficacy of selected instructional programs provided the foundation for reengineering certain day-to-day operations. Data on ancillary programs was requested to assist in redirecting certain resources. For example, the development of transition programs required the principals to look beyond their building needs in coordinating limited social work and psychological services to undergird the supportive service component of the transition plan. During the three years of Forum, the data requests required more than 75 hours of service by the university team assigned to the Forum. This research led to the development of system wide transition program, prioritization of building needs during budget cycles, and initiation of an educationally sound in-school suspension program.

Deprivitization of Practice

The Forum provided an accommodating atmosphere in which to launch and sustain conversations about practice. Observations by the research team suggested that the Forum provided a "no fault" dimension in which participants could share the "tricks of the trade" as well as concerns about the daily practice associated with the principalship. One principal stated, "I look forward to Forum meetings because I have a chance to talk only with my colleagues about our jobs." This statement proved to be particularly insightful in regards to the relationship between neophyte principals and senior principals who know how to get things done.

The research team identified the neophytes as those principals with less than three years of experience. There were three such individuals during the course of the three-year operation of the Forum. Their initial reaction to the Forum was one of apprehension or perhaps mild irritation. This feeling was natural given that they were in their first administrative post and did not want to appear as though they lacked both experience and technical knowledge. The neophytes were also concerned that this could be just another meeting that would decrease the amount of time they felt they needed to spend in their new assignment. The very first meeting for each of these individuals allayed those concerns due to the nonthreatening nature of the Forum activities. It soon became clear to the neophytes that the Forum provided the opportunity to share ideas and to experience collective and individual professional growth. This growth emanated from agenda topics such as: (a) developing budget priorities, (b) reviewing strategies to educate the priority children, (c) producing maximum program effectiveness with limited resources, and (d) addressing challenges presented by parents. Individual interviews with the neophytes produced such reactions to the Forum as, "I am thankful that this opportunity to share is here for me," or, "The Forum is an excellent place to share ideas, and I now have people I feel comfortable calling to discuss other administrative matters." The Forum provided an excellent opportunity for developing much needed mentoring and advisory experiences because the neophytes were able to observe individuals and then determine who can best help them. Previously, mentors were selected for the neophytes, but these opportunities frequently did not provide the gateway to networking in a manner that was provided by the Forum. In essence, the neophytes seek assistance from senior administrators with special expertise rather than rely on preselected mentor's general knowledge.

Another area of deprivitization of practice became apparent as the Forum meetings continued. Principals that have a reputation for getting things done provided the "tricks of the trade" to other members of the Forum, including the neophytes. For example, at each Forum meeting time was set aside to swap techniques related to getting things done. These sessions focused on techniques related to facilitating greater teacher assistance for teachers of at-risk students, increasing volunteer services and producing successful fund-raising activities. None of these techniques were carried out in sub-rosa fashion; these were simply techniques that have evolved after years of experience in the principalship.

A side benefit of these deprivitization sessions was the invaluable knowledge gained by the graduate assistants concerning "how to get things done" prior to their internships. In the past, graduate students in the Educational Leadership Program had to rely on their internship experiences to learn about the practice of educational administration. Although these placements were made carefully, the intern did not wish to appear helpless or apprehensive about accountability and would not always seek advice, direction, or consultation. The Forum provided graduate assistants with opportunities to ask questions related to what is expected of an assistant principal such as how to defuse volatile situations related to irate parents, press corps, and challenging students, or what factors are involved in increasing or decreasing compatibility of leadership styles between principal and intern. The Forum not only provided graduate assistants with the opportunity to seek answers to these sometimes vexing questions but also a network was put in place for the graduate assistants to use during their internship. This network acted to support rather than supplant primary mentoring that the graduate student would receive during the internship.

Collective Focus on Student Learning

The nature of the Professional Development School initiative was grounded in a focus on student learning. More specifically, the focus was on initiating, improving or sustaining programs for children that present educational challenges related to limited English, behavior problems, drop out tendencies, and failure to attain academic potential.

Throughout the three-year duration of the Forum: principals were guided by one of the four main goals of the Forum. "Raise issues related to the formation and implementation of policies that drive programs for children that present challenges to the educational process." There were times when the principals, having responsibility for all children, wanted to deviate from the stated purpose of the Forum and discuss the needs of all children. This was a natural desire and one that should be expected of the generalist nature of the principalship. However, the role of the university coordinator was to facilitate the steady focus or the four target groups on children. In fact, several principals agreed that, "The university coordinator's main role is to keep us on the task at hand." This statement clearly illustrated that, if given the opportunity, the principals preferred to widen the discussion to the needs of all children. This sentiment was so strong that once Forum initiatives were identified for the target children, the facilitator purposely illustrated how these programs could be of benefit to all students. The transition program was an excellent example. This pilot program, designed to support twenty-five target children in each feeder school pattern, was put into place a structured procedure that would hold great benefit for all children. This revelation won great support from those principals who continuously championed the rights of all students.

Perhaps, some of the most significant conversations that illuminated a collective focus on children related to the concept of alternative placements. The issue of alternative placements was critical because the options available in the district were not sufficient in the minds of the principals. According to several Forum discussions, non-traditional placements for disruptive, exceptional, and general education students were in competition with alternative placements for students unable to improve academic performance in traditional educational settings. The principals were clamoring for a more centralized alternative educational process that provided comprehensive services within a holistic perspective. More specifically, the principals were advocating a more centralized system that provided a variety of alternative placement options at both the elementary and secondary levels. This centralized system would be a collaborative operation between the principals and central office personnel. Toward this goal, the Forum Steering Committee was directed by the Forum to engage in a series of conversations with the superintendent and other central office personnel about alternative placements. These conversations took place on a limited basis because the issue of alternative placements was tied to resources and the district's resources were in a state of decline. The alternative placement issues that emerged from the Forum discussions provided additional evidence that the principals continuously maintained a child-centered focus. In general, administrators have a tendency to view alternative placements as opportunities to remove children from the traditional educational process that impede the progress of other students. The Forum discussions on alternative placements focused more on a combination of inclusive options.

Certainly other issues related to facilities usage, staffing patterns, public relations, and intradistrict staff politics were discussed. However, if there was no direct link to educational and support services for the target group of students, these issues were placed at the end of the meeting where open discussion was encouraged.

Collaboration

Collaboration was an essential component, or keystone, of the entire Forum activities. Without true collaboration, the Forum would have been shaped into another leadership team meeting, minus the superintendent's involvement, through the hierarchy of seniority within the group. To understand the depth of collaboration, it would be helpful to delineate the various levels of collaboration. Pugach and Johnson (1995), define collaboration as "working well with children and interacting well with adults" (p. 5). Within this definition, the authors have constructed a schema for collaboration that identifies the following 4 levels:

1. Supportive: caring and being there for your colleagues in times of need and in times of joy.
2. Facilitative: developing the capacity to solve problems through modeling or demonstration to inspire growth in colleagues.
3. Informative: providing information through direct assistance and/or networking so that colleagues are better equipped to deal with problems on an ongoing basis.
4. Prescriptive: prescribing a directed action to a colleague.

The areas of facilitative, informative, and prescriptive collaboration constantly permeated the following four conditions of a learning community articulated by Seashore-Louis et al. (1996); (1) supportive/collaboration and values, (2) facilitative/deprivitization of practice, (3) informative/reflective dialogue, and (4) prescriptive/collective focus on student learning.

The area of supportive collaboration produced a most encouraging finding; that is, the recognition by principals that, as a group, they needed to celebrate their successes. This finding had the following three elements suggested by the principals; (1) proactive public relations, (2) program efficacy and (3) collegiality. The first element related to proactive public relations was reflected in one principal's statement on the importance of "getting out in front to tell our story" rather than waiting for criticism to inspire reactions. This element emerged through the process of reflection that produced acknowledgments that schools were operating many successful programs that had received minimal exposure.

The second element related to the identification of the uneven success rate of certain institutionalized programs that overshadowed the growing success of new and innovative programs. The Forum discussions revealed that once programs were instituted, principals felt powerless to challenge their effectiveness, as they had very little opportunity to compare and evaluate data with colleagues. The Forum provided an opportunity for principals to compare and evaluate data with colleagues and to collectively articulate what "needs to be taken off the plate" so the light of success could glow brighter.

A third element was the feeling of colleaguiality that became increasingly apparent over the three-year duration of the Forum. During the first several meetings of the Forum, principals were cautious about establishing a trusting relationship. This sentiment was shaped by years of working in isolation of one another and not being provided with opportunities to view educational challenges from a system-wide perspective. Over time, the principals began to appreciate the opportunities to get to know their colleagues better in the relaxed, trusting atmosphere that was facilitated by the Forum. There were special moments where warm humor lifted spirits. For example, tensions regarding the schools that serve impoverished areas versus schools that do not became less pronounced as evidenced by one principal's comment referring to the attendance boundary between those schools as the "granola line." There were also moments where Forum members illustrated empathy for one member's efforts to have an incompetent teacher removed. In this situation the principals provided opportunities for their colleague to vent about the circumstances surrounding the incompetency action. In fact, the principal involved made the statement "just knowing you guys understand means a lot to me." Finally, the spirit of colleaguiality led the Forum members to identify dates when they could engage in informal social activities. Prior to the Forum, no such organized activities ever took place.

DISCUSSION

University-school partnerships should be viewed as evolving social experiments where the participants, with their own philosophy and practices, struggle to develop alternative ideas, organizational arrangements, and collaborative activities. This is a somewhat daunting task because these entities have not traditionally engaged in relationships that are mutually fulfilling for each partner. Successful partnerships must display sufficient selflessness to promote the accomplishment of self-satisfaction for all parties involved. Toward this goal, this case study illustrates that the PDS reform effort, in one rural district, created an atmosphere in which the learning community concept could emerge to the benefit of principals, university professors, and students.

Benefits for Principals

What difference does it make if principals function as a learning community or not? There are three perspectives in which to examine this question. Two perspectives of principal leadership in traditional schools do not require the mediating influence of a learning community. The first perspective suggests that the hierarchy of power in schools established the principal as all wise and all competent by staff (Carmichael, 1982). This perspective makes it extremely difficult for principals to openly concede that even principals need professional development outlets. The second perspective, according to Lee, Dedrick, and Smith (1991), asserts that in loosely coupled schools, administrative functions are separated from instructional functions. As a result, the principal is viewed as one "who gets resources for this school and deals effectively with pressures outside the school that might interfere with my teaching" (Lee et al., 1991, p. 203). The facilitative aspect of this second perspective also infers that as a manager, there is little need for the principal to be involved in extensive staff development activity.

It is the third perspective on which the findings of this study support the need for principals, as a group, to participate in professional development activities associated with learning communities. This perspective suggests that principals can no longer be seen as visionaries but must develop the capacity to facilitate sharing of ideas on which to negotiate the reality of shaping and reshaping the purpose of the organization (Leithwood et al., 1998, 1997;

Senge, 1990; and Sergiovanni, 1994). In essence, 21st century organizations must be led by administrators who appreciate the value of processes and relationships in place of rigid roles and regulations (Mitchell et al., 1997).

Benefits for University Participants

The partnership provided university participants ample opportunities to enrich graduate student pre-internship experiences and expand the knowledge base and research agenda of the professor involved.

A total of eight graduate students participated in Administrators Forum. As a result of the year-long experiences, each student entered the following year as an assistant principal intern with an arsenal of strategies for addressing challenges confronting neophyte administrators. In fact, all of these young administrators consider the Forum experiences as one of the most significant factors that led to their initial success and swift rise up the administrative ranks (4 students became principals after serving one or two years as assistant principals). It is also important to note that these three students converted some aspect of the Forum operation into dissertation research.

The university professor realized benefits in the area of instruction. Forum discussions related to high stakes accountability, teacher evaluation, central office relationships, and program development for at-risk students were integrated into lectures and classroom discussions. Forum members made presentations to graduate classes and provided opportunities for students to visit schools. Additionally, graduate students were often invited to attend Forum meetings when topics on the agenda mirrored topics discussed in class. Also, the professor engaged the services of colleagues in the academy to participate in Forum meetings as resource consultants and facilitators for building-based research initiatives of Forum members. Finally, Forum experiences reshaped the professor's research agenda by rekindling interests in topics (i.e., transition programming, student resiliency, and teacher leadership) that are of great importance to practitioners.

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CHAPTER 13

LEARNING FROM EACH OTHER IN A PROFESSIONAL DEVELOPMENT SCHOOL COLLABORATION

Karen M. Higgins

ABSTRACT

Over the past several years, Oregon State University has been engaged in developing Professional Development School partnerships with elementary and middle Chapter 1 schools. The context of this study was the creation of a professional development cluster of schools that brought together university faculty and public-school teachers to help train pre-service teachers as well as improve classroom instruction. This qualitative study investigates and describes how the university faculty, cooperating teachers, pre-service teachers, and children facilitated each other's learning and professional growth through the creation and implementation of this collaboration. In addition, this study incorporates an instrumental case study of a cooperating teacher who taught language arts methods to pre-service teachers in order to examine the impact of teaching pre-service teachers in this school context. *Women's Ways of Knowing* (1997) was the epistemological perspective used to "frame" this aspect of the study.

INTRODUCTION

As a teacher educator who works in Professional Development Schools (see Holmes, 1995), I have found that many of my colleagues "back" at the university do not have an understanding of the time and energy it takes to effectively orchestrate university/public school collaboratives. According to Stoddart (1993), collegial support for faculty involved in professional development sites is often lacking. Goodlad (1993) claimed that until the culture of the university acknowledges the importance and power of these collaboratives, they may be doomed for failure. On the other hand, those who recommend PDSs as a way to educate prospective teachers believe that there is "promise in these partnerships to affect change in teacher education in a way that has never before been experienced" (Higgins & Merickel, 1997, p. 183).

If teacher educators at the university level are to be convinced that these collaboratives are valuable to more than just pre-service teachers and public-school children, research studies need to explore their inherent value to university faculty and public-school teachers. One way to do this is to discuss how these partnerships contribute to the professional growth of all participants. The experiences within the PDS can do nothing but strengthen and renew teacher educators and provide them with a better understanding of the realities of "being in the trenches" and witnessing firsthand the effects of educational reform on children and teachers in schools. This collaboration may be the most powerful way to break down the ivory tower image often held by public-school teachers toward university faculty. It is important that university faculty acknowledge how much they need and can learn from these professional colleagues.

Bergeron (1996) suggested that PDSs must hold as liquid both conceptions of status and context so that "there is value and uniqueness in each other's perspectives. We are all concurrently experts and learners" (p. 64). Griffin (1996) called for the honoring of differential expertise so that the traditional roles of producers (university professors) and users (teachers) work together on equal ground in a passionate exchange of ideas. According to Olson (1999), for collaboration to work, "all participants must see one another and themselves as knowers whose ideas deserve to be heard" (p. 18). This need to understand the distinctive voice of each individual in the collaborative effort was echoed by Carini (1995) who raised the question, "How do we educate the unique person as maker?" One aspect of the process, she said, is the interaction of self with others through work.

Snyder (1994) found that university educators grew through more times in schools, better working relations between colleges and schools, and enhanced "understanding of the language and value of practitioner wisdom" (p. 108). Miller and Silvernail (1994) suggested that professors gain as much as everyone else, but the partnership is what is important, while roles and players change. "What's important is having the rub between theory and practice through partnerships featuring an emergent design that enabled experimentation and risk-taking and encouraged authentic partnership" (Miller & Silvernail, 1994, p. 48). In addition, Darling-Hammond (1994) found that veteran teachers learn more about "both the theory and practice of teaching as they teach novices. The old saw that you really learn something when you teach it to someone else has proven true . . . As classroom teachers become teacher educators, they find their own knowledge base deepening and their teaching becoming more thoughtful" (p. 11).

Over the past several years, Oregon State University (OSU) has been engaged in developing PDS partnerships with elementary and middle Chapter 1 schools. The context of this study was the creation of a professional development cluster of schools that brought together university faculty and public-school teachers to help train pre-service teachers as well as improve classroom instruction. This study describes how the university faculty, cooperating teachers, pre-service teachers (interns), and children facilitated each other's learning and professional growth through the creation and implementation of this collaboration, as well as the roles played by each participant, and the innovations that helped to make the partnership a success.

Incorporated into this study is the story of Carol, one of the cooperating teachers and the language arts methods instructor in the program. This study highlights her growth and the conditions that facilitated her emergent confidence in her ability to express herself as a professional educator. The discussion uses *Women's Ways of Knowing* (*WWK*) (Belenky, Clinchy, Goldberger, & Tarule, 1997) as the theoretical framework for her case study.

Wisniewski (1995) likened school-university partnerships in PDSs to the playing of jazz, where participants are taught missions, goals, and objectives, and then they improvise the tunes so that creativity is unleashed. Fullan (1995) suggested that, in such partnerships, change is a journey, not a blueprint, wherein a compass is needed rather than a map. Learning in the journey is what is important. This study focuses on the improvised tunes that led to the growth of all participants in this emergent partnership.

BACKGROUND

Originally, the partners sought monies for the program in the form of a Goals 2000 grant but did not receive the funding. However, based on the commitment made to each other during the grant writing, this partnership engaged in an experimental teacher education program which brought together eight interns (pre-service teachers), two university faculty, and five cooperating teachers from two Chapter I schools, an elementary and a middle, in two different districts. Teaching of the methods courses in Language Arts and Mathematics as well as Classroom Management were "turned over" to master teachers supported by university faculty. Carol was one of these teachers. They were responsible for designing the classes in such a way that strategies would be modeled for the pre-service teachers directly in the classroom. In this way, it was hypothesized that student teachers would have a better understanding of theory into practice. The hour-long debriefings that followed each session allowed opportunities for all participants to engage in rich discussions and reflections about teaching and learning. (For a more detailed discussion of this experimental program, see Higgins, 1999.)

Higgins (1999) found that four layers or conditions contributed to the emergence of the learning community's identity: trust, shared ownership, learning together, and reciprocal support (see Figure 1).

The first layer, trust, grew out of several years' worth of opportunities to work together and develop relationships. Shared ownership, the second layer, transpired through the participants' desires to create the program together as equals, recognizing that facilitating the professional growth of the pre-service teachers could be more powerful if we could do it jointly rather than separately. Through our learning together and community dialogue, the third layer, power differentials, began to break down between all stakeholders in the partnership. A vital condition for our growth as a learning community seemed to be reciprocal support, the fourth layer. Because our growth as a learning community was a dynamic process, there was a tremendous amount of interplay between the many aspects inherent in each one of the four layers.

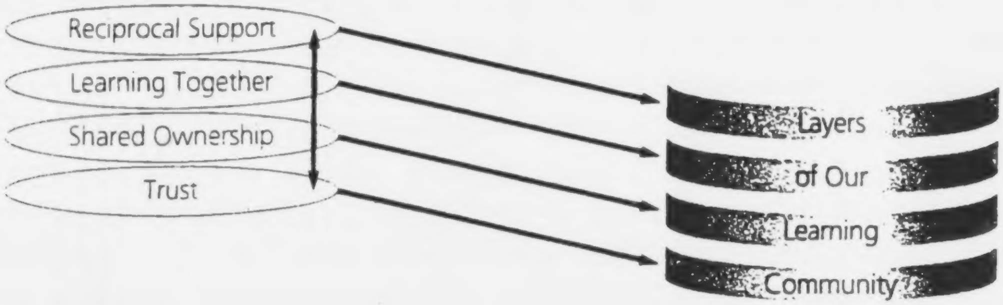

Figure 13.1. Four layers of our learning community.

METHODS

Participants

My colleague, Nora, and I (Karen) were the two university faculty who participated in this project. We both work in a teacher education program at Oregon State University. Nora, an associate professor, had been at this university for a little more than one year. Karen, an assistant professor at the time, had been at the university for five years. Information regarding the teachers who participated in the experimental program is presented in Table 1. All of the teachers except Kathi had been cooperating teachers for OSU prior to their participation in the experimental program. Carol had been a cooperating teacher for OSU for four years prior to this study. All teachers were experienced, averaging more than 12 years in the classroom. They were recognized by OSU's education faculty to have strengths in the areas in which they would be teaching.

Table 1. Information Regarding Public School Teachers in Collaborative Program

Teacher	*Grade*	*School*	*Teaching Area*	*# Years Teaching Experience*
Carol	1–2	Elementary	Language Arts	15
Kim	3–4	Elementary	Mathematics	9
Mari	K	Elementary	Classroom Management	12
Kathi	6	Middle	Language Arts	20
Mary Ann	6–8	Middle	Mathematics	5

The eight interns who participated in this study were all older than average students who had returned to OSU for a teaching license and Master of Arts in Teaching degree. This population consisted of three males (John, Neal, and Roger) and five females (Rina, Cat, Debbie, Tiffany, and Sherrene).

The elementary school of approximately 300 students is located in a rural school district outside a large city in Oregon. The middle school of approximately 560 students is located in a lower to middle-class suburb of this same city.

DATA SOURCES AND ANALYSIS

Naturalistic inquiry as participant observers through ethnographic field notes, transcribed tape recordings, and formal interviews was the main mode of inquiry. University faculty kept extensive journals as well as field notes of each class and debriefing session. Carol and the interns who participated in the program also kept journals. All 24 debriefing sessions following each classroom teaching episode were audio taped and transcribed as well as were other formal and informal debriefing sessions held throughout the term with cooperating teachers and interns. Interviews were conducted at the end of the study with cooperating teachers and university faculty. These interviews were also transcribed verbatim. Triangulation was made possible through collecting data from the perspectives of each participant as well as through a variety of sources. Data analysis used a constant comparison approach to code, sort, and cluster responses, forming classes or categories for the data.

Carol's involvement in this program was examined as an instrumental case study (see Stake, 2000) mainly to provide more in-depth insight into the value of the collaboration on a cooperating teacher who was given the responsibility of teaching one of the methods courses to the pre-service teachers. As a university professor who worked closely with Carol over the course of the year, I was amazed how Carol's professed growth as a teacher educator in the program seemed to parallel three ways of *knowing as* described in *Women's Ways of Knowing.* Because of this, *WWK* became the a priori theory that grounded the study of Carol and guided the data analysis and interpretation. Once this was determined, I reviewed and analyzed the interns' and university faculty members' journals related to Carol's teaching to increase the trustworthiness of the study. These multiple perspectives shed additional light on Carol's story. In addition, member checking and reciprocity with Carol allowed her an opportunity to clarify issues and to construct meaning with me through negotiation. According to Carol, "What you have written is exactly the way I felt and about the way I felt that I grew. So, I think it is a true reflection of what happened" (audio taped discussion of case study).

RESULTS

> How much there is to learn from each other. If we could just bottle the expertise from each of these amazing colleagues and share it, what riches the school has within its own boundaries. (Nora, journal entry)

There were many opportunities for all participants to learn from and with each other. First of all, the observations of classroom teaching provided authentic opportunities to observe teacher/student dynamics and view teaching episodes that would later be a focus of discussion within our learning community. In most cases, the five teachers taught lessons in their own classrooms for all of us to observe. There were other situations, created by cooperating teachers, where arrangements were made for us to observe additional teachers in their buildings. These observations, in and of themselves, provided rich learning opportunities. Secondly, all classroom observations were followed by discussion. Karne, the teacher who was observed by the interns, Karen, and Nora facilitated these discussions. The opportunity to talk about these teaching episodes and examine our beliefs about teaching and learning were likewise a vital learning experience for all of us. Only one rule was followed: It should be a constructive experience where we cared about each other's feelings. No put downs were allowed. Directly connected to this was the realization that there were a third way we all learned: We grew in our knowledge and understandings about different facets of ourselves as a direct result of our talking, challenging, and thinking together.

Learning Through Observations of Classroom Teaching

Before transitioning into the middle school, the three elementary teachers met with Nora and I to debrief the experiences. In the program's initial stages, the teachers felt we were involved in their classes to "watch over them." Until the debriefing, we were unaware that the teachers really did not understand our purpose in attending all classes and engaging in the discussions. Kim said, "The interns are in there to learn. You've been through all of this—it's that idea that you're here to watch and to make sure it's going to be OK." Karen informed the teachers that they (university faculty) had learned just as much as their interns had learned and it was their right to also be learners. "There's this wonderful, rich opportunity to learn from. I'll be damned if I'm not going to be a part of that, and that's the bottom line!" After a moment of laughter amongst the women, the teachers admitted that they and the students had gotten used to our presence in the classes and that their perceptions did change over the course of the term. The teachers came to view our role as learners—learning from both the teachers and their students:

> They are still mom and dad, in the sense that they are still the overseers. They still are the people that are held accountable at the university and so they do have that role, but I think their role also changes so that they are a part of the team. So, they are all learners. They are more involved in the schools as a learner and a teacher and their roles expand. . . . Sometimes they are support people on a personal or emotional level. A lot of times, I think that seems to be people stuff, and it's learning stuff, and it's risk taking stuff. (Mari, debriefing)

We often shared with the teachers how much we were learning from them and the student teachers. Nora expressed those feelings in one of her journal reflections:

> What strikes me is how much I respect each of the teachers and interns. I feel much more like we are learning together as equals, but at different phases. I am awe-struck with the ways Kim, Carol, and Mari handle classes. What comes home over and over is the knowledge about each child and his or her special needs or concerns. How differently each is handled, yet the overall approach is completely fair. I am learning so much. And how presumptuous it is as university faculty, to think we have the answers … We can learn a lot from interns too! … I learn so much because there's always new layers, new possibilities, how you do things, we never stop, never stop learning. It's really telling me this is how we should be a community of learners together.

Two of Karen's journal entries talked about her learning from the children: "I learned a hundred times more about children's mathematical thinking when I was sitting there interacting with them rather than doing a formal intern observation;" and "As I walked around the room, I was amazed at the continuum of language development I saw. Some students were writing fairly fluently, others were including pictures with their writing, and others only drew pictures." Because Karen was a mathematics educator, her learning in this new domain of language development placed her at the same novice level as her pre-service teachers.

Similarly, the interns learned from the cooperating teachers, university faculty, and students in the teachers' classes. After the first day, Rina reflected in her journal:

> I feel like I have learned so much in a short period of time that could never have been covered from a distance in a university classroom. In fact, my head feels a little bit like it's stuffed to the brim with the things I want to remember just from this first day. There is no substitute for actually seeing things in action. And I feel I have so much to learn from these teachers. They all seem as though they have really thought about what would be beneficial for us to know and their depth of experience makes me believe them.

Cat had a similar reaction in her journal:

> What a great day! I am excited about this site-based program. It was really interesting and educational to be in the classroom watching the teacher teach a lesson instead of just hearing about it. It helps so much for me to observe the language that teachers use with children. Also, to see the behaviors played out and how the teachers deal with them. Also, to see how the instruction is given, how and if the expectations are set, etc. This is authentic learning.

Tiffany expressed the following in a later journal entry: "Carol's class continues to be an incredible room to observe . . . I have learned much from her classroom management style and hope to incorporate the clarity in expectations and positive voice in my own teaching." Even though Carol was the language arts teacher, the interns learned about more than just teaching language arts because the instruction was placed within an actual classroom. Our discussions following each teaching episode covered all aspects of classroom teaching and student learning.

Neal also believed it was important for his students to view him as a learner:

> I really felt like we built a community of learners at all different age levels doing different things. My kids now know I'm in a class and am a student just like they are ... I mean, there are so many layers to this. We're all learning, we're all students. I think that it is so rich. It's so cool. (Debriefing session)

The teachers talked about the importance of our interactions with their children. They felt their students engaged more in the lesson when we were all in the classroom and interacting with them and asking them questions. After an informal debriefing midway through the term, Kim said,

> Mari and I discussed this this afternoon. The kids in the classroom gained so much more because each group of three or four kids had an adult who was there to lead the discussion and say, "Why are you thinking that?" It wasn't just that the interns benefitted from the students, but for the kids in the classroom—it was a much richer experience.

When the children were asked in one of the classrooms how they felt about all the adults in the room, they said, "We love it. We think it's great because they can help us and we can talk to them and learn from them" (Grade 1–2 students, field notes from class discussion).

Mari "invented" the idea of observing other teachers in her building. During the final debriefing, the teachers talked about how wonderful it was to actually go and observe each other teach and see the different teaching styles of their colleagues. At the end of the term, the interns figured out that they had actually been in 18 classrooms over the course of the term. This additional learning opportunity was an unanticipated benefit of the experimental program.

Learning Through Collaborative Dialogue

Senge (1990) distinguishes between two different types of discourse, dialogue and discussion:

> In a discussion, different views are presented and defended … this may provide a useful analysis of the whole situation. In dialogue, different views are presented as a means toward discovering a new view. In a discussion, decisions are made. In a dialogue, complex issues are explored. (p. 247)

According to Senge, the purpose of dialogue is to go beyond one's individual understanding and to explore complex issues from many points of view. "Dialogue can occur only when a group of people see each other as colleagues in mutual quest for deeper insight and clarity. Thinking of each other as colleagues is important because thought is participative" (p. 245).

Some of the most powerful learning happened during and as a result of the debriefings that followed each classroom observation. For example, in one of the discussions following an opportunity for the interns to teach fractions to small groups of middle-school students in Mary Ann's classroom, Neal shared his excitement about the experience. Karen reflected on Neal's comments in her journal:

> Neal said he saw children "constructing their own knowledge." Wow. When he said this it gave me goosebumps. This must happen when all interns (not just these) teach lessons to all their students. Why did this make such an impression on him? He's been in the classroom for three months. Key: Is it the dialogue afterwards within our community of learners that is so powerful?

During the final debriefing, Karen asked the interns what stood out most in their minds as they thought back over the term. Debbie said,

> Being in the classroom, doing everything first-hand, then coming back and talking to a teacher while it's still hot in our mind and you were able to debrief. "Why did you do this?" "Why did you do that?" and "Why didn't you get a reaction from this student and that student?" "What were you thinking of when you did this?" That, to me, was learning. That experience was great.

Tiffany expressed the group's sentiments: "Debriefing after lessons is very informative—hearing teachers express their thoughts and hearing other observations. I pick up much more than I would with just my observations."

As a teacher in the program, Kim also expressed the value of this dialogue during an interview:

> When you have a discussion with a group, the dialogue that is going on brings up other issues that may have been overlooked by just one person … It grows ten fold when you have other people to discuss it with you rather than one person just going to watch on her own.

According to Senge (1990), people explore many different points of view in dialogue. This free exploration brings to the surface the full depth of people's experiences and thoughts, moving them beyond their individual views. The collective thinking and learning that is the result of dialogue is vital to realize the potentials of human intelligence.

"Self-Learning" Through Community Dialogue and Reflection

Reflecting on the dialogues, which transpired regularly in our community of learners, caused many of us to think more deeply about ourselves as teachers and learners. In addition, the teachers had opportunities to reflect on their teaching and to grow as reflective practitioners. In the final debriefing with the elementary teachers, we questioned them as to why the experimental program appeared to have such a profound effect on them—after all, they all had been cooperating teachers in our program for more than three years. Mari explained it this way:

> To me it's like you're an artist. You have been practicing your craft for a long time and then all of a sudden you get—what are they called—you get an apprentice. But, you're still the "expert," see, you could still strut around there, you can say anything you like, you can explain anything away, you know, good or bad, or indifferent, and you know they can accept you or reject you. But, it's only that one person. As soon as you've opened it up for the team and for outside experts and you've gone public, to me that's the difference between that and having an artist's public showing. Where, all of a sudden you have to have yourself together as you want to share in public and I think that's the difference between what we've done in the three years previous to this versus the cluster model.

The debriefings and dialogue that transpired after each teacher's lesson were incredibly rich and thought-provoking. In fact, in our first debriefing session with Carol, one of the interns asked if we could please stop the conversation so that she could go to the bathroom, as she "didn't want to miss anything!" We all rapidly asked questions of the teachers—questions related not only to the pedagogy demonstrated by the teachers but also to the teachers' decision-making processes. Carol reflected on one of these early exchanges:

> The post conversations were very engaging. The two hours were very in-depth in questions and answers. The interns asked me so many excellent questions that I had specific and sometimes unique reasoning and explana-

> tions. I found myself delighted that I had so many reasons that I make the teaching choices I do.

In particular, Carol's openness as a cooperating teacher and method's instructor taught us all the value and importance of personal sharing within a community of learners. We watched her teach, we engaged in dialogue with her about her teaching, and we affirmed and questioned her beliefs about teaching and children. To a great extent, I believe we owe much of our growth in our knowledge of the teaching-learning process directly to her. We were connected through ties of mutual empathy and commitment, and that connection enabled us to explore the process of teaching and learning in ways we, as university faculty, could never have imagined within the walls of the university. A closer look at Carol's growth through this process will hopefully provide additional insight into the value of a collaboration such as this to in-service teachers, as they are fundamental to the success of university-public school partnerships.

Although Carol's growth is described through women's epistemological perspectives, I hope that this study will expose and stimulate a new way of describing the growth of teachers through their active participation in the training of pre-service teachers in PDSs. It seems as if more and more methods teaching is being "turned over" to teachers in the field, especially through university/public school collaborations at Professional Development Sites. I hope to provide a different lens for viewing this important contribution to training tomorrow's teachers.

A CLOSER LOOK AT CAROL'S GROWTH AS A TEACHER EDUCATOR

In *Women's Way of Knowing,* Belenky et al. (1997) describe the powerful ways of knowing that women have cultivated and learned to value. They claim that women's epistemological assumptions are central to their perceptions of themselves and their worlds. Belenky et al. describe five different perspectives from which women view reality and draw conclusions about truth, knowledge, and authority: (a) silence (the absence of voice), (b) received knowledge (viewing authorities as sources of truth), (c) subjective knowledge (truth as personal, private, and subjectively known or intuited), (d) procedural knowledge (the voice of reason), and (e) constructed knowledge (efforts at reclaiming the self through the integration of knowledge that one intuitively feels is personally important with knowledge that one has learned from others).

Carol began her teaching of our pre-service teachers (interns) through "gut" and intuition, based mainly on her past 15 years as an elementary teacher (subjective knowledge). As all of us engaged in dialogue with her about her teaching and as she talked about her perspectives and reasons for certain teaching behaviors, she was amazed at her own voiced reasons for her actions. Then, as she read the readings assigned to the interns (readings which had been assigned to pre-service teachers from prior university teachers of the language arts methods course) and reflected more deeply about her own teaching, she began to integrate the voice of reason and others into her teaching and to balance this with her own intuition and experience (procedural knowledge). What grew out of this was a very reflective teacher who could speak to beginning teachers with authority and confidence (constructed knowledge). According to Belenky et al. (1997), when women move toward constructed knowledge, they rise to new ways of thinking. Having witnessed this phenomenon, I approached Carol about this study.

In the Beginning: Subjective Knowledge and the Inner Voice

In an early journal entry, Carol said that many of her reservations about teaching the language arts methods class had to do with questions such as, "What do the interns really need from me?" and "How does this fit in with what OSU wants for them as instruction?" These questions led her to question what "self" needed to emerge when she worked with the interns. Did she need to be "Professor Carol," the voice of authority and wisdom from a university perspective, or could she be "Teacher Carol" and trust her own subjective knowledge?

> At first I was somewhat torn about being my "real self" or being what I thought the supervisors may want. I decided that I was better to be my true self. I believe in the way I teach. It comes from sincere caring for my students, their self esteem, and their learning. The teacher model, I am hoping, will be a positive learning experience about real teaching for the interns—one that they will remember and refer to realistically in their future teaching challenges. (Journal entry, Carol)

(In retrospect, Carol said that being "Professor Carol" would have been a lie to her since she didn't feel qualified in that role.)

Belenky et al. claim that the growing reliance on intuitive processes is "an important adaptive move in the service of self-protection, self-assertion, and self-definition" (1997, p. 54). Subjective knowers become their own authorities. This freedom from social convention and definitions represents a move toward greater autonomy and independence and is a step toward connected knowing.

Through our discussions with Carol, she became more confident in her subjective knowing as evident by this journal entry: "I am discovering by this interaction with the student teachers that I know with confidence the reasons that I do things in my teaching . . . Next time I will record our session." In the margin, I responded to Carol's journal entry: "Such intuitive knowledge is wonderful!" Carol did audiotape the next debriefing session so that she could hear her own responses to the student teachers and keep track of their questions. In her journal, she wrote down the questions and her responses to them.

It is not unusual for subjective knowers to be shaky about their own judgments and often they do not know where their own good ideas came from. They are proud if others affirm their conclusions and opinions (Belenky et al., 1997). In the final interview with Carol, she reflected on what she had learned about herself and her teaching:

> There have been some real positive aspects to [the debriefing sessions] in that it has allowed me to think through and to verbally talk through my philosophies in what I do and how I teach, and what I teach. I'm one of those people that needs to say it, speak it out loud. So, when I hear myself saying the things and the reasons that I do, I say, "Well, yeah, that makes sense that I do that ... no wonder I do it that way." They will ask me, "Why do you do this?" and I will say, "Well, I do it because of this." And then I say to myself, "Gosh, that really makes sense." And so it's sort of a confirming and positive aspect of teaching. That takes you right back to where the teacher is the learner and just the whole multi-age thing where if they're teaching, they're learning and how much more children retain if they are in a teacher position.

Moving Toward Procedural Knowledge and Connected Knowing

Procedural knowers engage in conscious, deliberate, and systematic analysis. "They have learned that truth is not immediately accessible, that you cannot 'just know.' Things are not always what they seem to be. Truth lies hidden beneath the surface, and you must ferret it out. Knowing requires careful observation and analysis" (Belenky et al., 1997, p. 94). Carol said that prior to her teaching in the experimental program, she had never really thought or voiced the reasons behind many of her teaching actions. Our questions forced this introspection on her part:

> I think it's really critical to try to balance sharing a kind of philosophical ideas and the ideals, as well as kind of real life practical stuff, because so often the ideals and life in the classroom do not quite meet. How do you try to draw the two together? One piece I think, for me, that I've found is really

> critical, is trying to be sure I attempt to address both sides. Whether it's done successfully or not is for anybody to say, but I just try to keep both of those in mind. (debriefing of experience)

In many situations, Carol was able to find a balance between what "experts" had to say about teaching and her personal views, based on experience. Procedural knowers are open to more than one interpretation and are careful not to jump to conclusions. When questioned about the role of the researcher or what the "experts" have to say about teaching, Carol believed they still had a lot to offer the teacher, even though they were distant from the classroom:

> I think to become saturated with what experts have to offer is good and helpful. So, I can't criticize. I think that there is not one way or one way is right and one way's wrong. I think different teachers take on strategies, and I think that's important that they do that, and programs that they are comfortable with. (midterm interview)

Connected knowing builds on the conviction that the most trustworthy knowledge comes from "personal experience rather than the pronouncements of authority" (Belenky et al., 1997, pp. 112–113). Early in Carol's teaching career, she placed a great deal of credence in what "experts" had to say about teaching. In an interview at the end of the program, she talked about one of those experiences where she had been trained in direct instruction and had used that form of teaching for six years "until it was coming out my ears." Carol voiced her frustrations not only with the program but with her students' dislike of reading and their inability to read anything other than the books that were part of the program. "It was a struggle to be successful and a punishment if they weren't. It just didn't make sense to me." Carol finally abandoned this approach to teaching language and writing and now claims that her children are reading more complex stories than before. As Carol grew stronger and more sure of herself, she trusted her own instincts as a teacher.

According to Belenky et al. (1997), the only sort of criticism connected knowers recognize and easily accept is when members of a group share a similar experience. "Authority in connected knowing rests not on power or status or certification but on commonalty of experience" (p. 118). Furthermore, they claim that members of connected-knowing groups engage in collaborative explorations. This way of framing our engagement in discussions around our observations of Carol's model teaching seems appropriate.

The trust within our community of learners was strong enough that the interns felt comfortable questioning Carol about her actions. Even in our first debriefing session with Carol, one of the interns asked Carol about the negative tone of voice she had used with a student over a behavioral issue.

Carol had not been aware of this and told the interns that it was not what she had intended. She took this even further by talking about how "important it was to be careful about those kinds of things and not give students the wrong impression, as she had." It also was not uncommon for the interns to ask questions of Carol in which she did not know the answers. Her statements such as, "I think that's something I need to think about" contributed to our collective admiration of her openness and willingness to grow and to reflect deeply about her teaching. Our community of learners was an integral component to all of our growth and our respect toward Carol continued to blossom as she openly shared her insecurities and delights in this teaching/learning experience. It takes a brave teacher to be willing and secure enough to put her teaching and students under the "eye" of the university, and be cast into a very public and interpersonal arena (Powell & McGowan, 1995; Stoddart, 1993). This level of trust does not happen overnight.

Moving into Constructed Knowledge and Integrating the Voices

Finding a place for reason and intuition and the expertise of others, i.e., a voice of integration, is how Belenky et al. (1997) define constructed knowing. They describe characteristics that are central to this epistemological position:

> These women were all articulate and reflective people. They noticed what was going on with others and cared about the lives of people about them. They were intensely self-conscious, in the best sense of the word—aware of their own thought, their judgments, their moods and desires. Each concerned herself with issues of inclusion and exclusion, separation and connection; each struggled to find a balance of extremes in her life . . . Each wanted her voice and actions to make a difference to other people and in the world. (1997, p. 113)

Toward the end of the term, Carol began to see that her intuitive knowledge about teaching had integrated with what she had learned from others through her staff development training and the readings she had done and assigned to the interns. In her journal toward the end of the term, she claimed that she could hear her staff development experiences coming through to validate her ways of teaching and that reading the textbook had also confirmed that she was "doing things right."

The research conducted by Belenky et al. (1997) indicated that women who were able to weave together strands of rational and emotive thought, and to integrate objective and subjective knowing had all gone through a period of intense self-reflection and self-analysis. It seems that reflection time is a rare privilege for teachers, given the intense demands placed on them from so many arenas. The debriefings and discussions that followed Carol's teaching episodes could be considered as a time for this reflection as well as an opportunity for "really talking." This form of discourse is valued by constructed knowers because it requires careful listening and a "mutually shared agreement that together you are creating the optimum setting so that half-baked or emergent ideas can grow . . . Conversation, as constructivists describe it, includes discourse and exploration, talking and listening, questions, argument, speculation, and sharing" (Belenky, et al., 1997, p. 144). The constructivist paradigm assumes a subjectivist epistemology where the knower and respondent co-create understandings (Denzin & Lincoln, 2000).

At the end of the term, Carol talked about how she had grown professionally through the "verbal communications, the back and forth discussions over the lessons and the purposes, and my teaching strategies and teaching philosophies." Carol claimed that this teaching experience had made her analyze her teaching more than she had over the past few years. Perhaps Carol's growth toward constructed knowledge was the direct result of her personal articulation of and reflection on her own teaching and learning within our community of learners: "I am finding myself learning or rather examining my reasons for teaching choices. To be voicing these strategies through discussion with the group of interns has helped me to confirm my philosophies of teaching."

Constructivist knowers find it exhilarating and confirmatory if their ideas can be taken in and put to use, and spark interest among others. Carol believed in the value of her modeling lessons for the interns and felt this was one of the strengths of the experimental program:

> I modeled the lesson and I planned it out and I wrote my purpose and we had discussions. I think that it worked really well and I think that the interns got a lot out of watching. I think the model of instruction was really efficient and appropriate and that these eight interns have come away with a better picture of what they will be able to do. (final interview)

Carol's last assignment for the interns was to write a reflection paper about their experiences with her as a teacher. After reading the papers, she said:

> I think that having this experience has increased my confidence in myself because of the one assignment I gave about reflection and how pleased the interns were with my classes. Again, it just confirmed my confidence that they thought that what they saw was what they wanted to be like and that the teaching techniques were valuable to them, and the university professors, too having confidence in me. So, that's been a pretty strong impact. (final interview)

During the process of self-examination, constructed knowers develop a narrative sense of the self—past and future, and desire to stay alert to the fact that different perspectives and different points in time produce different answers. Truths are a matter of personal history, circumstance, and timing, and internal truths may conflict and change with time (Belenky, et al., 1997). During an interview with Carol over a year after the experimental program, she said that her experiences have taught her "not to be so sure that your philosophy is right and criticize someone else's (or another teacher or program) because what you think can change by your experience and what looks this way to you now might not later."

SUMMARY AND DISCUSSION

> Learning from each other. I find it so exciting to be in the co-learning, co-teaching position. I learn from the teachers who are brave enough to model. I learn from the student teachers as I watch them teach and discuss the lessons they've observed. I learn from my university colleague. (Nora, interview)

This study gave indication that cooperating teachers, university faculty, and pre-service teachers grew professionally and profoundly through the creation and implementation of this school-university partnership. For university faculty, stepping out of the ivory tower into the real school world has led to a much greater understanding of the work of teachers and the expertise already extant in classrooms that can benefit student teachers. For classroom cooperating teachers, the focus on teaching beginning teachers created a receptivity to learning and reflecting on practice, leading to enhancement of teaching children. For pre-service teachers, opportunities to observe common teaching episodes with university faculty and witness the merging of theory with practice created a richer teacher education experience than what could have happened within the university classroom. The children had the additional advantage of many teachers with which to work and share their learning.

Friesen (1997) claimed that the hierarchical relationship between university-based educators and school-based educators has been perpetuated by the hegemony of one conception of knowledge—the university produces knowledge of teaching and the teachers apply this knowledge to problems of practice. The participants in this study certainly attempted to break down this hierarchical relationship between faculty from our university and faculty from the schools with whom we worked. This often requires an espistemological shift which values the forms of knowledge constructed in practice (Olson, 1999). Pajak (1999) states that it is only within the past 10 years that this "artificial and counterproductive gulf between pre-service and in-service education has finally begun to be bridged" (p. 199). PDSs can be viewed as an attempt to deliberately link pre-service and in-service education, with the intention of benefitting both. These "rich linkages are essential if our understanding is to accrue with respect to how classrooms, schools, and teacher preparation programs can improve together" (Pajak, 1999, p. 203). This study gave every indication that there is certainly great promise in taking teacher education programs off campus and into schools where there is potential to learn so much from each other.

According to Simmons, Konecki, Crowell, and Gates-Duffield (1999), it is important to know more about the underlying perceptions and interpretations of stakeholders engaged in collaborative reform within PDSs as they "help us improve our collaboration processes and increase the likelihood of genuine reform occurring" (p. 44). When teacher educators "turn over" teaching to master teachers within PDSs, it is easy to assume that they have the confidence to teach others about their craft. This isn't always the case. It wasn't until Carol shared her inner thoughts and lack of confidence with us regarding this process that we became aware of her private turmoil. Unfortunately, we didn't find this out until the term was almost over, and had we not engaged in this research, those inner thoughts may never have been shared.

If we were to choose one aspect of the experimental program that had the most impact on our growth, it would be the discussions following each teaching episodes that brought together the entire learning community—the cooperating teachers, the interns, and the university faculty. This was especially evident as Carol talked about her own growth through this experience and what she had learned about herself as a teacher and learner. This is important to keep in mind as others experiment with different delivery models for pre-service teachers in site-based teacher education programs. Having classroom teachers teach the methods through modeling lessons is valuable, but without the discussions afterwards, discussions which force self-reflection and analysis on the part of the teachers, I do not believe that Carol would have considered this experience to be one of the most professionally productive of her teaching career.

Dialogue is powerful. According to Burbules (1993),

> Dialogue is not something we *do* or *use*, it is a relation that we *enter* into … Considering dialogue as a kind of relation (with one or more other people) emphasizes the aspects of dialogue that are beyond us, that we discover, that we are changed by. … The creation and maintenance of a dialogical relation with others involves forming emotional bonds, such as respect, trust, and concern. (p. xii)

The image of collaboration as "conversation" (Friesen, 1997) suggests the possibility of establishing dialogical relationships that resist the control of any one participant and results in mutual learning. Through these conversations, university faculty and cooperating teachers cease to be identified solely by what they know or do. Instead, they are viewed by who they are and how they relate to each other. According to Olson (1999), there is an openness to inquiry in authentic conversation. "Conversation is a means of connecting individual views of experience that lead to further understanding both of the topic and of the person" (Olson, 1999, p. 21).

When student teachers are immersed in the world of practice, they are faced with intense pressures that deal with the day-to-day realities of teaching. According to Friesen (1997), these pressures privilege the technical concerns of teaching while marginalizing the need to understand teaching practices in order to bring about meaningful change. Gadamer (1989, cited in Friesen, 1997) reminds us that conversation is also a "process of coming to an understanding" (385) through interpretation. Our collective understandings of the teaching/learning process was greatly enhanced and facilitated through the intense conversations and dialogue that occurred after observing the teaching episodes together.

The collective learning that emerged amongst all participants could be viewed as a product of "connected teaching" as described by Belenky et al. (1985). "Connected teaching is personal" (p. 42), and in a sense all participants in the experimental program, from university faculty to first-grade children, were all "connected teachers" who presented themselves as "genuine, flawed human beings [who] allowed students to observe the imperfect processes of their thinking" (p, 42). As a result of this collaborative learning, a strong, cohesive learning community evolved out of our experimental school-based teacher education program.

Barone (2001) raised an important question regarding educational research into teaching: "Is any notion of good teaching (and learning) independent of the personal, cultural, and theoretical perspectives from which it is viewed?" (p. 25). My hope is that others see the value of embracing multiple interpretive research on projects that shed light on the complexities of our work in universities and public schools. Our collective goal of ensuring the "success" of ALL children is dependent on searching for ways to involve and take advantage of the combined wisdom of all stakeholders. If we have learned nothing more, we have learned how much we need each other.

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CHAPTER 14

AN INTRODUCTION TO TEACHER PREPARATION AT HOLT HIGH SCHOOL

One View from the Partner University[1]

Tom Bird

INTRODUCTION

For the last decade, at least, Holt High School has played an important part in the evolution—and since1992, in the substantial revision—of the teacher preparation program that is associated with Michigan State University. That revision may be traced, in part, to the 1988 "Report of the Task Force for Reform of Teacher Education at Michigan State University" (Task Force, 1988). The Task Force Report expresses much that has been intended in the design of the program. The Task Force cover lists three MSU faculty members who participated in PDS work at Holt High School.

Secondary teacher candidates must complete MSU's general requirements for a bachelor's degree and a disciplinary teaching major and teaching minor, both chosen from a list of approved majors and minors. They must also complete the sequence of undergraduate "professional education courses" that appears in Table 1. Two of those courses are intended to be taken before admission to the teacher preparation program. One (TE 301) is taken in the junior year; in that course, teacher candidates begin practice work in schools two hours per week. The two senior year courses, totaling 11 semester credits and incorporating four hours per week of work in schools, are devoted principally to issues of teaching subject area content. From 301 on, the courses are taken in sequence, which makes it possible for instructors to pursue coherence over time.

Table 1. Undergraduate Professional Sequence

Course	*Title*	*Cr hrs*	*Practice work*
TE 150	Reflections on Learning	3	None
TE 250 or	Human Diversity, Power, and Opportunity in Social Institutions	3	Service learning
CEP 240	Diverse Learners in Multicultural Perspective	3	
	Admission to the Teacher Preparation Program		
TE 301	Learners and Learning in Context	4	2 hours per week
TE 401	Teaching Subject Matter to Diverse Learners	5	4 hours per week
TE 402	Designing and Studying Practice [More on teaching subject matter]	6	4 hours per week

THE INTERNSHIP

If teacher candidates complete the undergraduate program successfully, meeting both the requirements already described and a set of professional criteria that include "reliability and responsibility," "communication skills and social relationships," and "comfort with and concern for the learning of all children," then they advance to the internship, which is normally the fifth year of study for persons who begin in MSU's undergraduate program.

The internship includes extensive and increasingly responsible work over two semesters in the classroom of a mentor teacher. In addition to the mentor, interns are assigned an MSU field instructor who visits and works with them and the mentor regularly. Work with the mentor and field instructor accounts for 12 of the 24 semester hours credit that interns earn during the year (TE 501 and 502 in Table 2).

Interns also complete four related courses, totaling 12 semester hours. These are numbered at the master's level and are creditable as part of MSU's master's degree program in curriculum and teaching. In a fall-spring sequence of two courses (TE 802 and TE 804), secondary interns

Table 2. Internship Program

Course	*Title*	*Cr hrs*	*Notes*
		Fall semester	
TE 501	Internship in Teaching Diverse Learners, I	6	About 24 hours per week in schools; field instructor
TE 801	Professional Roles & Teaching Practice, I	3	Combined with weekly seminar for TE 501
TE 802	Reflection & Inquiry in Teaching Practice, I	3	Teaching subject matter addressed here
		Spring Semester	
TE 502	Internship in Teaching Diverse Learners, II	6	About 24 hours per week in schools; field instructor
TE 803	Professional Roles & Teaching Practice, II	3	Combined with weekly seminar for TE 502
TE 804	Reflection & Inquiry in Teaching Practice, II	3	Teaching subject matter addressed here

continue their study of the practice of subject matter teaching. In the other sequence (TE 801 and TE 803), they examine the professional and organizational contexts of classroom teaching, including work with parents, colleagueship with other teachers, and the school as a workplace for teachers.

No part of the program was more challenging than the internship. In the prior program design, teacher candidates completed one quarter (ten weeks) of student teaching during their senior year. In the new program, interns would spend two semesters—about thirty weeks—with their mentor teachers. The internship was, by far, the most intensive part of the new design, both for school and for university personnel; therefore, it rapidly became the main topic of school-university interactions about the teacher preparation program.

School-university relationships forged in the PDS work lent important support to the negotiation of the internship as actually practiced. By way of their other work with MSU personnel in the PDS initiative, Holt High teachers knew more about the new program than teachers in other secondary schools, had influenced its conduct, and, indeed, were involved in carrying it out. Another way in which Holt High School provided leadership was to work, as the design had intended, with large numbers of interns—about a dozen a year.

A subject of discussion between MSU teacher education faculty and Holt High School faculty has been the evaluation of interns. As a formal matter, MSU instructors are responsible for the evaluation of interns. As a matter of partnership, we hold that field instructors and mentor teachers should undertake evaluation of interns together. Our handbooks call for ongoing formative evaluation, also for summative three-way meetings among interns, mentor teachers, and field instructors at the middle and end of each semester. At the end of the year, the mentor teacher and field instructor write separate reports that, with the intern's consent, are placed in the intern's University placement file.

Table 3 shows the current program standards for interns. The four goals from the 1988 Task Force report are inserted in brackets.

Table 3. Program Standards for Interns

Knowing subject matters and how to teach them

- The intern understands the subject matter(s) as needed to teach it (them).
- The intern thoughtfully links subject matter and students, creating a responsive curriculum.
- The intern plans and implements a curriculum of understanding.
- The intern is thoughtful about assessment and its relationship to planning and teaching.

[Our program should instill deep understanding of subject matter disciplines and related content specific pedagogy.]

Working with students

- The intern respects and cares for all students in his/her charge.
- The intern promotes active learning and thoughtfulness.
- The intern builds on students' interests, strengths, and cultural backgrounds.
- The intern treats all students as capable of learning.

[Our program should inculcate a deep commitment to equitable access for all children to valuable, empowering knowledge.]

Creating and managing a classroom learning community

- The intern creates a safe, caring, productive environment in the classroom.
- The intern makes the classroom an inclusive community.
- The intern helps students develop personal and social responsibility.

[Our program should equip (teacher candidates) to establish "learning communities" in their classrooms and schools in order to realize the goals of academic learning and social justice.]

Working and learning in a school a profession

- The intern works well as a teacher in a school community.
- The intern works productively with his/her MSU liaison, collaborating teacher, field instructor and seminar instructors in ways that support his/her learning to teach.
- The intern reflects on his or her experience and seeks opportunities for continued learning and improvement.
- The intern is open to alternatives and constructive feedback.

[Our program should instill professional norms that would improve our graduates' engagement in the profession, decision-making and practice in the future.]

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EVALUATING THE PROGRAM

A survey of teachers working with interns in the spring of 1998 provides us some basis for estimating how things generally stand in school-university relations regarding the teacher preparation program. Four hundred and fifty teachers were surveyed; 274 responded, well-distributed across elementary and secondary schools and across teacher preparation teams. Therefore some confidence can be placed in the results.

Both in topic and in tone, a very large majority of the teachers' written comments are favorable-to-enthusiastic descriptions of benefits both to school pupils and to teachers. Those comments correspond to equally favorable responses on rated items regarding pupils' welfare and learning and teachers' own vitality and growth. While few teachers were moved to write their own responses about benefits to their schools, large majorities of the responding teachers agreed with several propositions about those benefits. Table 4 shows the results regarding benefits to pupils.

Table 4. How Much Does Your Participation In The Teacher Preparation Program Affect Your Ability To Interact With The Students In Your Classroom In The Following Ways?

Responses in percent	*Detracts greatly*	*Detracts somewhat*	*Has no effect*	*Adds somewhat*	*Adds greatly*	*Missing*	*N*
Deal effectively with the number of students	1	5	8	33	53	1	274
Attend to students with special needs	1	5	4	40	48	1	274
Pay attention to individual students	1	9	6	34	49	1	274
Conduct participatory and hands-on activities	1	4	16	37	41	1	274
Tailor learning experiences to individual needs	1	5	10	52	30	2	274
Build personal relationships with students	1	18	23	32	26	1	274

These results seem to be good news not only for the teachers and their students and school, but also for the teacher preparation program. Working with high concentrations of interns, teacher candidates, and their university instructors year after year can be strenuous. The offsetting benefits to school pupils may enable teachers to remain engaged.

Table 5 reports teachers' estimates of benefits to themselves, mainly in the form of personal professional growth. The effectiveness of a teacher preparation program depends a good deal not only on the mentoring practices but also on the teaching practices of the teachers with whom teacher candidates work.

Table 5. To What Extent Do You Agree Or Disagree With The Following Statements About The Effects Of Participating In The Teacher Preparation Program On Your Teaching Practice?

Responses in percent	*Strongly disagree*	*Disagree*	*Agree*	*Strongly agree*	*Missing*	*N*
Encourages me to examine my ideas about teaching and learning	0	3	49	47	1	274
Increases my sense of professionalism	0	8	54	36	2	274
Allows me to share teaching responsibilities with others	1	5	61	31	2	274
Opens my teaching to scrutiny by others	3	14	51	30	2	274
Provides me access to new ideas about teaching and learning	1	12	57	27	2	274
Increases my opportunities to work and talk with teachers in my school	2	18	53	26	1	274
Provides me access to workshops on teaching	6	31	47	14	2	274
Allows me to network with teachers from other schools	9	34	45	8	4	274
Provides me access to workshops on mentoring	7	36	45	8	3	274
Creates new tensions among participating and non-participating teachers	33	54	9	2	1	274
Creates new tensions between me and my pupils' parents	41	49	7	1	2	274

That participating in the program contributes to teachers' professional development is, again, good news for teacher preparation; the program depends heavily on their teaching practices, and is, by the teachers' report, contributing to growth in those practices. At the same time, we should not be satisfied with the results for the items concerning access to new ideas, opportunities to work and talk with other teachers, and access to workshops and networks.

Program evaluation is likely to be prominent in school-university conversations in the next few years. Like schools, teacher preparation faces rising demands for accountability on the basis of results. Soon, we will have to substantially improve our program evaluation procedures and particularly our procedures for evaluating interns. The National Council for the

Accreditation of Teacher Education (NCATE) is moving to a performance-based approach to accreditation which could be likened to outcome-based accreditation of schools. Recently, MSU affiliated with the new Teacher Education Accreditation Council; in TEAC's approach, accreditation centers mainly on program evaluation. To be accredited, a program must have powerful ways of learning what its students and graduates know and are able to do, must show good results, and must use evaluation results systematically to improve itself.

Evaluation of interns would not be the only piece, though would likely be the centerpiece, of the needed program evaluation. While we take considerable care with the evaluation of interns, those evaluations do not yet meet the technical standards for design and administration of a high-stakes performance assessment. Similarly, our current procedures yield only individual reports on interns; we will need to be able to summarize results across interns and to compare results across years to gain a program evaluation. To be practical, affordable, and beneficial, those evaluations will have to be integrated with our conduct of the intern year and into the practices of course instructors, field instructors, and mentor teachers. We will have a great deal to talk about in designing and constructing those evaluations.

NOTE

1. Excerpted from "An Introduction to Teacher Preparation at Holt High School: One View from the Partner University" by Tom Bird.

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CHAPTER 15

HOLT HIGH SCHOOL'S PROFESSIONAL DEVELOPMENT INITIATIVE[1]

Mary E. deWolf and Dean Manikas

Holt Senior High School partnered with Michigan State University in 1989 to begin the process of developing a Professional Development School. The Holt faculty never officially chose to become a PDS. There was never a faculty vote. In 1989, a group of seven specifically selected Holt faculty members, along with the principal and superintendent, were invited to hold meetings and conversations with MSU to explore the PDS initiative. From these efforts the partnership began.

Many of the Holt staff shared conflicting feelings of wariness and enthusiasm in the early days of the partnership. Several voiced fears that the university had an "agenda" or a plan that they would "shove down teachers' throats" through the PDS model. Many complained that the university personnel were "too academic," and many who had read educational research literature found little application to actual classroom practice. The academic writing failed to speak to the day-to-day frustrations and struggles involved in education in a comprehensive high school. However suspicions and anxieties began to abate as collaboration between the Holt and MSU faculties continued. It became clear that the MSU cadre was sincerely interested in learning about teaching in a K–12 setting and had as many questions as answers.

The first year of the Holt PDS (1989–1990) was fruitful and exciting. Several projects began in the "core" curricular areas. The core curricular projects had the formal assistance of university professors and graduate assistants, and, in most cases, teachers in these projects were reassigned one of their five teaching hours every day to work on PDS efforts.

One concern was that university personnel seemed convinced that a PDS partnership should involve only an elite cadre of a few teachers that would work with the university. In the early stages of the partnership, Holt faculty members made it clear that such an approach was unacceptable. The faculty was a cohesive unit, and a few could not be singled out. If the benefits of a PDS were to be garnered by all, all would need access to and participation in the PDS activities. This concern was answered by the "organic group" that developed as a result of a summer institute session on organic management versus bureaucratic management.

The "organic group" worked to construct PDS projects that involved more of the faculty in other curricular areas and with more "whole school" focus. For example, the "organic group" devised several study groups that engaged the whole faculty, including assessment and fine arts (an initial look at portfolio assessment), coalition with parents and community, integrating vocational and academic education, interdisciplinary explorations, multicultural awareness, cooperative learning, and restructuring. These initiatives functioned without the level of support and resources that the core curricular area projects enjoyed, including university personnel and reassigned time. This inequity of support was, and would continue to be, a problem for the Holt PDS.

The PDS work at Holt continued to grow, but in the middle of the school year, January 1991, the partnership changed. The Michigan Partnership for New Education (MPNE) was formed between the university, the State of Michigan and private enterprise. This brought a different mix of politics and agendas to the PDS effort. The goal of the new partnership was to realize an extension of the early PDS successes by increasing the number of PDSs and extending them to more diverse educational venues. The MPNE brought an increased amount of resources and the burgeoning MSU/PDS was awarded significant dollars to fund action research, curriculum development, and dissemination efforts.

As is common when change and reform occur, tensions arose among the staff. A continual source of dissension was the dichotomy of support for the "core" curricular projects versus the "all school" projects. MSU was not able to provide personnel in all subject areas (e.g., foreign language or business) and those projects functioned without much university assistance. Additionally, the core curricular areas continued to benefit from the very expensive reassigned hours, which literally freed teachers from teaching duties for one hour of the day. Among the myriad of collaborating activities pursued by teachers were action research projects, e.g., studying alternative ways to restructure the school day, curriculum planning, and interdisciplinary team meetings.

Other jealousies erupted over the number and variety of conference opportunities afforded some of the teachers. Typically, more core curriculum teachers enjoyed these excursions. There was also the misconception that those teachers that had interns somehow had an "easier" work life. Some faculty began to believe that there were teachers who were "getting out" of teaching, either through reassigned hours, conference and workshop attendance, leaving during the day to teach at MSU, or through their interns.

Yet another growing tension involved a strain on resources. With a dozen or more interns in the building and MSU personnel working in collaboration with PDS projects frequently in the building, limited materials and space became more difficult to access. Tensions were not confined to intrabuilding relationships. While one of the five elementary buildings in Holt also became a PDS in 1989, other school buildings in the district felt that, once again, the high school was garnering more than its share of resources. In addition, while the community, at large, and the Board of Education continued to be receptive to the PDS concept largely as a result of staff efforts to keep them informed, parents and students at Holt began to complain about the numbers of interns. They were becoming concerned that too many classrooms were not being taught by certified teachers.

The introduction of the MPNE in 1991, while initially bringing increased resources and opportunities, proved to generate another set of problems. This new governing body was interested in spreading the PDS initiative among more schools in a relatively short period of time, believing that the districts would fund such efforts through a combination of outside sources, district budgets, and partnership support. Moreover, the new partnership was looking for more ethnically diverse and economically troubled districts than white, suburban Holt proved to be.

Another part of the agenda of this new partnership was the demand for immediate results. The leaders of the MPNE, coming from backgrounds in government and private industry, did not share the same perception of the nature of educational change and the length of time needed to evidence success of that change as that held by the school and university education professionals. Furthermore, the definition of what "success" would look like was never clearly delineated. The value of standardized tests versus alternative assessment in measuring student success was just one example of a disagreement. Quantitative evaluation of the effectiveness of the PDS reform had not been stressed in the early years and PDSs found themselves struggling to prove the value of their work.

The HHS/MSU partnership was not spared dissension. Holt Senior High School also was buffeted by tension in the College of Education at

Michigan State University over the professional value of working in a K–12 building versus traditional academic research and writing. Some close relationships between university personnel and schoolteachers were severed when university personnel were pressured to abandon the partnership to save their academic careers.

As the Holt Senior High School PDS aged over a period of eleven years, a new set of challenges developed. Many of those challenges have evolved from changes in state government. In 1994, the state executive and legislative branches began passing and enacting a series of legislation that would be demoralizing to public schools. State funding of education was changed dramatically with the end result being severe erosion of local control. Schools were no longer funded primarily with local property tax dollars and controlled locally but rather by a state income tax, where the revenues were received and parceled out by the state. Increased state involvement evolved through centrally created curriculum benchmarks and standards, accompanied by an ever more high-stakes battery of standardized tests.

Other changes brought by the series of public acts included mandates for additional student instructional time (not accompanied by a proportionate increase in resources) and an undermining of the rights of teachers to bargain collectively. In addition, public funds were, for the first time, allocated to public charter schools. Another challenge to public schools included increased support in the state government for some type of voucher plan to support private schools.

The shift in interest to charter schools was mirrored in the decisions made by the MPNE. Large amounts of resources were shifted to support charter schools, taking from the support for public PDSs like Holt Senior High School. The amount of dollars available for work at Holt Senior High School began a continual decline in 1995 when PDS funding depended on the state and the university, later dwindling to university support only. The MPNE would eventually dissolve in the late nineties.

A component of the partnership with MSU that has continued to prove troubling is the tension over focusing on single department work (e.g., exploring how students understand the language of mathematics) versus whole school projects such as exploring the implementation of a block schedule or organizing students into learning houses. As a departmentalized institution, MSU had little interest in the whole school efforts and offered little support for their investigation. Holt faculty members have continually disagreed over the amount of emphasis to be placed on whole school efforts versus departmental foci. Those who would like to see more whole-school reform feel constricted by those who remain devoted to departmentalization. Faculty who have worked hard to develop curricular reforms in their departments felt a need to now cement those reforms, and believed the whole-school focus would derail that attempt.

Despite these challenges, the reform efforts at Holt Senior High School remain strong. Even with financial setbacks and additional time mandates, the Holt faculty has clung ferociously to its Wednesday morning collaborative time. Holt remains as a host to many seniors from MSU's teacher education program and has maintained a steady level of placement opportunities for the interns from that program. Holt faculty members continue to teach at MSU in the preparation of new teachers. Holt continues to aggressively pursue and receive grants, including significant grants for integrating technology and school to work initiatives thus providing ever-expanding and innovative educational opportunities for students. The PDS projects continue, albeit on a more limited basis, as it appears that university funding will continue to support professional development networks rather than being concentrated in a few Professional Development Schools.

The Holt/MSU Professional Development School has evolved from a set of distinct projects within the high school to new professional norms for how work is generally conducted in the school. This evolution has taken more than ten years. This work has often been exciting, sometimes distressing, but always part of the school's professional life. Having professional development time institutionalized and valued assists the hard work of thinking about the art of teaching. The special link with the university, the hosting of pre-service teachers, and the willingness to stretch professionally has created a unique environment where professional inquiry has become a learned habit. We expect our work to continue, maintaining the university connection, and flexibly rolling with the changes inevitable in the educational arena.

NOTE

1. Excerpted from "An Introduction to the Professional Development School Initiative at Holt Senior High School" by Mary E. deWolf and Dean Manikas.

REFERENCE

Michigan Partnership for New Education. (1992). *Professional Development Schools.* Unpublished manuscript, Michigan State University, East Lansing.

CHAPTER 16

EXPERIENCING THE INTERNSHIP FROM THE INSIDE

An Intern's Perspective[1]

Alyssa Rickard

As a direct result of the multiple relationships I was required to negotiate as an intern at Holt High School, I became a vital, functioning member of the school community. Although I cannot speak for someone who has been through a more typical student teaching experience, I firmly believe my role at Holt was much more than that of a "brief visitor" to the school and its students.

The most immediate relationship I experienced was that of intern to collaborating teacher (CT). My CT was the person with whom I had the most contact and the person who monitored my progress on a day-to-day basis. My CT and I had a genuine collaborative relationship that involved keeping a constant finger on what was occurring in the classroom, while also giving me the space to become a teacher. She and I spent many hours discussing issues such as my planning, our overall vision for the year, and how I was adapting to my new role. My CT was kind enough to open not only her filing cabinets but also her "teacher's head," letting me see how a veteran teacher makes important classroom decisions on everything from management to curricular issues.

During my internship year, I had the incredibly important opportunity to work with a special education teacher. As a result of laws like P.A. 94-142, I **must** know how to accommodate students with special needs in my classroom and how to adjust my curriculum in order to suit the different learning styles and abilities of my students. The special education teacher was more than willing to answer my questions, listen to my dilemmas, and offer suggestions. He, too, kept his pulse on what was happening in the classroom but also gave me the space I needed to move from an "intern" to a teacher.

Another important relationship is that between the intern and the field instructor. Although my field instructor was not in my classroom on a daily basis, she always knew what I was doing and how well I was doing it. She made weekly visits to observe my teaching, and we kept in constant contact over the phone. She served as another important resource for me, helping me to negotiate my role as an intern and also as a graduate student. She was on hand to make sure my teaching was consistently solid and that it met the rigorous standards of Michigan State's program. She served as a sympathetic ear when I ran into problems and as a source of encouragement when I felt the pressures of the internship were too much for me to handle. The field instructor has the delicate task of working with the intern, the CT, and the university to create a harmonious, productive relationship.

An often overlooked but integral relationship in the web of teacher education is the dialogue between the intern and the librarian. Eventually, all teachers must step into the library for any number of reasons. The support the librarian provided for me as an intern was immeasurable. She was always available to answer questions and to assist me in the planning of research-based projects. Because of her assistance I know that I am more competent in planning library-related activities and I know that my students will be saved much frustration as they complete these activities.

Finally, the administrator plays an important role in shaping an intern's year. I referred to the administrator on issues of discipline, inquiries about opportunities for extending my learning as an intern and even questions about finding employment as the year drew to a close. The administrator wants to ensure that all students working with interns are receiving a high-quality education while fostering the growth of a fledgling teacher. In addition to balancing these two issues, the administrator must surely deal with opposition from parents, students, and other faculty members who are concerned about the intern's role.

As I reflect on my experience as an intern at Holt High School, I can say that my year was very well spent. Was it difficult to negotiate the many different relationships with which I was faced? I would have to say that yes, it was. However, I would do it again without a doubt or second thought. What was required of me as an intern at a Professional Development School is certainly no less than what will be required of me as I begin my career. I will have to negotiate many of the same relationships, this time without the safety net of a field instructor. But, because I have successfully navigated a year of working as a member of a school community, I have no reservations about attempting this on my own. I have no question that I am better prepared for my teaching career than most, if not all, other pre-service teachers. The experiences offered to me at Holt were rich, varied, wide in scope and deep in breadth. I am fully convinced that my year spent as an intern at Holt High School will save me agonizing hours as a new teacher trying to discern my role in my next school. It was an invaluable learning experience, one that will serve me well as I embark upon my teaching career.

NOTE

1. Excerpted from "The Intricate Web of Teacher Education: Negotiating the Multiple Relationships of the Internship in a Professional Development School" by Cathy J. Siebert, Matt Bliton, Amy Galligan Clark, Mary deWolf, Dean Manikas, and Alyssa Rickard.

CHAPTER 17

FACILITATING EDUCATIVE EXPERIENCES FOR THE INTERN

The Role of the University Instructor[1]

Cathy J. Siebert

While the evolving nature of pre-service programs has certainly changed the work of the field instructor, providing instruction in a Professional Development School shapes the position even further. As a university field instructor, my role and responsibilities are clearly affected by the context and culture of a Professional Development School. The ways in which preservice teachers need my help and the types of support I provide are different in a PDS, versus non-PDS, setting.

My participation in the Holt High School professional development work has provided me with a building-wide perspective on the types of teaching and learning valued by teachers and on the range of activities in which faculty and staff engage to promote effective teaching and learning. I have also had the opportunity to establish long-standing relationships with faculty and support staff. As a result, I am in a much better position to facilitate the intern's processing of the disposition and work of the PDS teachers. A crucial part of this is helping interns negotiate the multiple relationships that are a reality of learning to teach in a PDS context. In turn, I can take a proactive approach to shaping better learning-to-teach opportunities for my interns.

Knowledge of, even involvement with, the various PDS projects and activities occurring in the high school makes me sensitive to the complex culture within which my interns are attempting to learn to teach. Many of the teachers who work with our pre-service teachers are actively engaged in inquiry and reflection, a disposition fostered and supported by the PDS context. Oftentimes as a result of this inquiry and reflection, veteran teachers take risks in their teaching, trying new material and strategies, in order to provide the best learning opportunities for their high school students. Initially, pre-service teachers may interpret their cooperating teachers' actions as "flying by the seat of their pants" teaching. As a field instructor, I find that an important part of my work with interns involves helping them process and understand what they observe and experience in a PDS. Knowing the many types of teaching and learning they're observing and experiencing enables me to ask important questions to help them unpack their thinking and challenge some of the judgments they may make.

Part of my responsibilities as a field instructor in this context involves helping interns find their "place" within the culture. All pre-service teachers struggle with finding a place for themselves within another teacher's classroom. In the PDS setting, however, this struggle can be compounded by feelings of intimidation or inadequacy. Veteran teachers have years of experience to fall back on when what they are trying does not work. The interns have little, besides personal experiences as K–12 students and the knowledge and experiences they have acquired at the university, to retreat to when things don't go well. Consequently, many interns in a PDS feel like they "just can't do this kind of teaching." Helping them to move beyond their paralysis to see and take advantage of the opportunities available in a PDS and to support the development of their own inquiry and reflection is an important part of the field instructor role.

Traditionally, interns have had to establish relationships with two individuals during their practice teaching—the cooperating or mentor teachers in whose classrooms they are placed and a representative from the university (such as a field instructor). Interns in a PDS setting are required, by the very nature of the PDS context, to develop working relationships with a larger number of faculty and staff. Most interns experience feelings of insecurity or uncertainty about their level of subject matter knowledge and their abilities to manage and conduct an effective classroom. In traditional models, pre-service teachers need to establish the trust necessary to show their weaknesses and be honest about their needs to only two people, their supervisor and their mentor. In the PDS setting, the number of relationships they must build increases. As a field instructor, my responsibilities include helping interns negotiate the multiple relationships they must develop at the PDS.

Holt High School, as a Professional Development School, offers interns more extensive and intensive opportunities to push their thinking about teaching and learning. As a field instructor at a PDS, I have more flexibility when it comes to addressing the needs of the interns with whom I work. Arranging for interns to co-plan, team teach, sometimes even assume lead responsibilities for a class in their minor is more easily achieved at Holt High School. Depending on the intern's needs and/or interests, I—along with the other professionals in the PDS—can frequently craft exceptionally educative opportunities for the intern.

In addition to flexibility in internal placements, the Professional Development School also offers the interns opportunities to work with the other educators in the building on professional development activities. Various types of study groups, PDS projects, and reform initiatives are constantly occurring at Holt High School. Interns are welcome to participate in many of these activities, discovering that their ideas and opinions are actively solicited and always valued. Interns sometimes experience difficulty in knowing when and how to participate in these activities. I, as well as their mentor teachers, help them "find their feet" within the study group or project. Once interns become involved in the PDS activities, they find themselves working collaboratively with teachers from all disciplines, unfortunately, a too rare event in public school teaching. Often it is these experiences that interns point to as being extremely beneficial to their growth as professional educators.

Having served as a University Field Instructor for interns placed in both PDS and non-PDS settings, it is my belief that the types of opportunities for interns placed in a PDS setting are clearly different from those available in non-PDS settings. As discussed above, these differences significantly affect my work as a field instructor. They also "up the ante" in numerous ways for the person learning to teach within such a context. Those of us involved in the pre-service education program as it is manifested at Holt High School believe that these differences provide substantially better learning to teach opportunities for pre-service teachers.

NOTE

1. Excerpted from "The Intricate Web of Teacher Education: Negotiating the Multiple Relationships of the Internship in a Professional Development School" by Cathy J. Siebert, Matt Bliton, Amy Galligan Clark, Mary deWolf, Dean Manikas, and Alyssa Rickard.

Part III

RESOLVING PROBLEMS, PROPOSING SOLUTIONS: TOWARD A RESEARCH AGENDA THAT STRENGTHENS PDSs

CHAPTER 18

COLLABORATING FOR URBAN SCHOOL AND TEACHER EDUCATION RENEWAL

Perspectives on the Development of a School-University Partnership

Zhixin Su

ABSTRACT

This research report presents multiple perspectives on the creation and development of a school-university partnership between a teacher education program in a large public university and an urban school district in California. The collaboration aims at restructuring teacher education as a rigorous, high-status, and field-based activity that takes place in reforming urban education. Findings from this early evaluation study (featuring intensive individual interviews of key participants of the collaboration) reveal that school people tend to hold quite different perspectives from university people on the purposes, processes, and substances of the partnership. While all participants believed that the partnership had achieved some remarkable successes and helped make a solid connection between urban schools and university teacher education programs, they identified the lack of commitment from the university and the absence of effective communication as the major obstacles to the further development of a true and equal partnership. Recommendations for improving the collaboration between schools and universities were made based on conclusions drawn from the rich descriptive data and often-disturbing contrasts in perspectives between the school and the university participants.

INTRODUCTION

In the past two decades, school-university partnerships have mushroomed across the nation and have emerged as a significant social and educational experiment. According to the comprehensive directory of the partnership experiment sponsored by the American Association for Higher Education (AAHE), by 1995, there were more than 2,300 school-university partnership programs all over the country, up from the 750 identified in the 1986 directory (Wilbur & Lambert, 1995).

A notable form of the movement advocated by education reformers is partnerships involving Professional Development Schools (PDSs) or partner schools, most often referring to the substantial involvement of one or several elementary and secondary schools in the pre-service teacher education program of a college or university (See, for example, Clark, 1995; Darling-Hammond, 1994; Goodlad, 1984; Holmes Group, 1990, 1995; Zeichner, 1992). While most of the school-university partnerships tend to be one-sided efforts (improve focus lies on the improvement of teaching and learning in lower-level schools, rather than the restructuring of university programs), PDSs focus on the simultaneous improvement of both school and university (Goodlad, 1993; Su, 1990). In a Professional Development School, both school and university change the work and culture of the other, each deriving important benefits from the other, and efforts are made by both to institutionalize new ways of training and educating novice and in-service teachers. This report presents multiple perspectives on the initial development of one such effort—the Comprehensive Urban Teacher Education Institute (CUTEI). CUTEI is a collaboration between a teacher education program at a large state university in California and an urban school district. This partnership was established in the fall of 1995 with the support of a grant from the California State Department of Education.

PURPOSES OF THE COLLABORATION

The major purpose of the CUTEI is to restructure pre-service and beginning teacher education as a rigorous, high-status, field-based activity that takes place in reforming urban schools (Oakes, Beck, & Mitchell, 1995). Participants in the CUTEI recognize that many existing schools often compound problems of disadvantaged children. These children can be seen as "disabled" or "not ready" or, most recently, "lacking in social capital." Educators everywhere say, "All children can learn," but few seem to really believe it. Too often, the one institution that low-income, minority, and/or immigrant families count on for access to a better life simply perpetuates a cycle of discrimination, poverty, and hopelessness. Few well-qualified teachers are attracted to teach in such schools, and most who do often leave within a very few years. Unfortunately, many schools in the greater Los Angeles area provide prime examples of this institutional failure.

Three factors constrain our ability to tackle this urban school crisis effectively. First, we find that most teachers in city schools lack the knowledge, skills, and dispositions necessary to teach culturally and linguistically diverse groups of low-income children effectively. Secondly, city schools' fail to modify their practices and create conditions conducive to effective teaching and learning for culturally and linguistically diverse groups of low-income children. Finally, university-based teacher education programs are often disconnected and can be far removed from novice teachers' daily experiences with children and from the cultures of the schools in which they teach. Taken together, these failures of urban teacher education programs and city schools underlie society's unfulfilled pledge to provide all children with the education necessary to participate intelligently as citizens of a democracy (Oakes & Gelbwachs, 1995).

Participants in this partnership came together recognizing that the university alone cannot prepare educators effectively without close connections with urban schools. They also recognized that universities can provide important resources and scaffolding to urban schools that are attempting to transform the way diverse groups of children are educated. Consequently, the university and the urban school district formed a partnership whose overarching goal is simultaneous teacher preparation, professional development, and institutional renewal in schools with high minority, largely Spanish-speaking populations. The school system and teacher education program at the university forged a joint commitment to provide teachers with the knowledge, skills, and dispositions they need to deal with the multiple barriers to educational success faced by minority students. They sought to develop urban school cultures that are hospitable to new, research-based approaches to teaching ethnically diverse student population and creating supportive learning environments that respond to the problematic social and economic conditions of urban life and to fundamentally restructure teacher education with the participation of the urban school district.

BACKGROUND AND DEVELOPMENT OF THE COLLABORATION

The university and the urban school district in this partnership have a long history of collaboration in education and in the academic disciplines. In the two years prior to the establishment of the partnership, they had been engaged in serious conversations and pilot efforts toward collaborative teacher education (pre-service, induction, and ongoing professional development). These conversations and pilots were characterized by numerous conversations, enormous good will, and continuous learning. In the first year of collaboration, the "Professional Development School Project" launched a joint effort to implement and evaluate an alternative model of teacher education and support for new teachers. The clinical faculty in teacher education at the university and faculties in the collaborating urban schools agreed to work together to prepare a cohort of 30 teacher candidates during the first year of partnership. By the end of the year, the working group had evolved a set of principles, goals, and preliminary organizational structures to guide the continuing work together. In the following academic year, the pilot effort expanded to one team of elementary teachers who spent the entire school year under the tutelage of university professors, clinical faculty, and doctoral students in curriculum and teaching studies. The schoolteachers served as site supervisors at each of the campuses. The university and school people met regularly to consider both logistic and substantive issues in their work.

The cohort of 30 novice teachers was actively engaged in an inquiry-based school reform effort in six collaborating urban schools in the partnership. Several faculty members and doctoral students from the university were in residence in these schools. Some of the teacher education courses were taught on the school sites and schoolteachers were invited to participate in the novice teachers' university course work as well as in their "practice teaching." Several teachers joined the university faculty and students in developing case studies of teacher decision making and teacher problem solving. Novice teachers learned about teaching in the context of urban schools, supervised not simply by the traditional "master teacher" but rather by a team of urban school faculty supported in their professional development by the California Subject Matter Projects and a team of ladder faculty and doctoral students from the university. An important part of these novice teachers' learning to become teachers included developing the knowledge, skills, and dispositions to create schools where low-income, minority youngsters engage with rich, meaningful content in an atmosphere of high expectations and teacher efficacy. The strategy was to engage the novice teachers at those schools where the faculty participated in a district-sponsored inquiry-based approach to school renewal. Rather than seeing the status quo of teaching and learning at their "training schools" as the ideal, novice teachers observed and experienced a faculty engaged in serious inquiry toward a reinvention of schools and teaching for low-income, language- and ethnic-minority students.

INQUIRY-BASED EVALUATION OF THE COLLABORATION

While the fledgling efforts in the first few years of the partnership yielded impressive results, enormous difficulties in developing the collaborative were also encountered. In order to create a solid, workable, meaningful, and long-term collaboration between the school and the university, the CUTEI conducted an inquiry into the directions, current conditions, and future prospects of the partnership at the end of the third year of collaboration.

Both survey and interview instruments were designed for the inquiry, based on a partnership evaluation model developed at the National Network for Educational Renewal (Puget Sound Educational Consortium, 1990) and on Lortie's (1975) and Shen's (1994) interviews with school teachers. They cover several areas of concerns—aims/goals, commitment, benefits, leadership/organization, resources, substance, communication, outcomes, and future directions. After considerable discussion among the researchers, faculty members, and administrators in the partnership, it was decided that individual interviews were the most appropriate method of data collection for this inquiry. A total of 57 school and university people identified as most involved in the development of the collaboration in various ways were interviewed individually by trained researchers. Subjects included three university administrators, six clinical faculty, one ladder faculty, four doctoral students (three of them were team leaders for novice teachers), seven novice teachers, four school district administrators, seven school administrators, and 25 schoolteachers. The results are nearly 250 pages of single-spaced, transcribed interview data.

The multiple perspectives that have emerged from the interview data represent different groups of participants in the collaborative activities—school and university leaders/administrators, schoolteachers, university faculty members, and novice teachers. Together, they present a rich portrayal of the partnership as it is today and suggest significant implications not only for the future development of this partnership but also for the reform of teacher education and urban education in the larger social and educational context.

FINDINGS AND DISCUSSION

The presentation and discussion of interview data in this section is primarily based on a summary of the major themes that have emerged from the general responses to interview questions. Comparisons and contrasts will be made among the multiple perspectives across different groups of participants in the collaboration. Whenever possible, the analysis and discussion of findings from this inquiry will be related to relevant literature on the school-university partnership development in other parts of the country.

Involvement of the Subjects in the Collaboration

Our subjects for the interviews involved themselves in the partnership in very different capacities, depending on their roles and responsibilities in their own institutions. The Co-Director for the university's teacher education program was exemplary in her personal involvement. She met regularly with the school district administrators and the Steering Committee for the Collaboration to make sure that the connection between the two institutions was maintained. She also met regularly with the clinical faculty and "critical friends" who did the day-to-day work with the novice teachers and inquiry at schools. She taught and co-taught foundation courses to novice teachers at the school sites. In addition, she encouraged and brought other ladder faculty into the partnership and provided them with grant money. Unfortunately, most of the ladder faculty in the Department of Education were not involved in the partnership. One key university administrator interviewed attended a few meetings between the university and school people at the earliest stages in the development of the partnership but was not seriously involved later on in the substantive activities. The third university administrator interviewed was interested in developing a program that could provide bilingual, minority undergraduate students from the university with teaching assistantships in the partner schools and recruit them into teacher education/education graduate programs. However, he noted that the accreditation of bilingual TA's "had not gotten off the ground" as much as he would have liked.

Six clinical faculty from the university teacher education program were interviewed for the study. All taught methods courses to novice teachers. While four admitted peripheral involvement in the partnership, one person did not see herself as part of the collaborative. The one clinical faculty who was intensely involved in the partnership also served as the team leader for the novice teachers placed in the urban schools for teacher training. Moreover, he served as a facilitator for a series of community forums on social justice and as a "critical friend" for one school's inquiry activities. Although he had played a most important role in teacher education at the university, he had not been able to participate in regular faculty meetings and decision making since he did not have a regular faculty status. The one ladder faculty interviewed considered herself as the "researcher" for the partnership. Her focus was looking specifically at the inquiry process in one middle school. She was, as she described it, a "friend of the partnership." She attended many of the meetings in the Collaboration and was interested in all aspects of the partnership. Like the other two or three ladder faculty members who have taught and conducted research in the partnership, she was an assistant professor under great pressures to write and to publish in order to maintain her tenure-track status and, ultimately, obtain tenure. Unfortunately, time spent in schools often pulls one away from activities deemed essential in the university reward system.

Three doctoral students from the university were interviewed. Two served as team leaders for the novice teachers. Although the team leaders' responsibility was not clearly defined, they described their work as providing support and guidance to novice teachers. One also served on the Steering Committee of the Collaboration. The other doctoral student was hired as a graduate researcher in the Dean's Office and her major goal was to determine what the university and the district thought it meant to be in a partnership. She participated in many meetings and activities and interviewed several participants in the Collaboration. Based on information gathered from these meetings and interviews, she developed a mission statement for the partnership and played the role of liaison between the university and the schools.

The four school district administrators were involved in various ways in the partnership. The chief administrator was involved in the conceptualization of the partnership and attended the Steering Committee meetings whenever he could. He also strongly encouraged school teachers to participate in the graduate and teacher education courses offered by the university faculty on the school sites, where university faculty, doctoral students, school teachers, and novice teachers developed case studies of teacher thinking and teacher problem solving. The administrator from the school board served on various committees with members from the university and the schools. A third district administrator was involved in the social justice series that the university presented on the school site and served as a "critical friend" for one of the schools. The fourth administrator considered herself as a "collaborator" with the university, together providing education for novice teachers and renewal of schoolteachers.

Twenty-five teachers and seven administrators from the partner schools were interviewed for the study. Several were involved in inquiry-based school reform activities, participated in the social justice forums, and supervised novice teachers. A few sat on the Steering Committee meetings for the Partnership and worked as part-time lecturers for teacher training courses. When the university ladder faculty began to offer foundation and teaching strategies courses on the school sites, teachers and administrators in the partner schools were offered generous incentives—stipend, credits toward professional development and funding support for going to AERA conferences. They were also able to attend these courses and to participate in developing case studies with the university faculty, doctoral students, and novice teachers on teacher problem solving and teacher change in their classroom practices. However, only a few attended frequently, and only two actively worked with novice teachers in developing case studies.

One problem was the lack of communication. Although the university instructor distributed the course syllabus and invitation letters to teachers at the Steering Committee meeting and asked committee members to announce and distribute letters to all interested teachers in the partner schools, most teachers who came to the class sessions later said that they did not receive information about the invitation until after the first two weeks of the classes. Another problem seemed to be the time of the classes that ran from 5:00 to 8:00 p.m.—a very difficult time for schoolteachers to be there, according to research (Cuban, 1993). Some of the teachers interviewed complained that the course, as it was designed, did not meet their needs because (a) they felt that they were there only to assist the novice teachers in shaping their research questions for case studies, and (b) the class was too big and noisy.

The seven novice teachers interviewed were all members of a team in the school-based teacher education program. They took most of their training courses, traditionally held on university campuses, on the partner school sites, observed daily classroom activities in the partner schools, and participated in the inquiry and social justice meetings in the schools and the community. They were deeply impressed by what they saw and learned and felt that they were put in touch with the reality, while learning the theoretical models and perspectives in the training courses. The students, however, were very critical of the lack of involvement of university faculty in the school and community meetings and forums. They would like to have seen the ladder faculty participate alongside their clinical faculty and team leaders who were doctoral students. This problem seems to be common in partnerships across the nation (Goodlad, 1994). Without changing the existing research university culture that rewards research and publication more than participation in teacher training and school reform, it is very difficult to get ladder faculty, especially those senior faculty who are high-status, involved in partnership activities.

Aims/Goals of the Collaboration

When a partnership is being formed, nothing is more important than clarifying purposes for all those involved (Su, 1990). Although the CUTEI clearly established its aims and goals in writing at the time of its inception, they were not widely shared by the participants. The stated all-encompassing aim of the CUTEI was to restructure pre-service and beginning teacher education as a rigorous, high-status, field-based activity that takes place in reforming urban schools. Chief intents of this inquiry are to: (a) assess whether this aim and its accompanying goals are consistent with what members of the partnership believe they are, and (b) how effective the collaboration has been in achieving the aim and goals.

Findings from the interview data indicate that not all participants, including some sitting on the Steering Committee, were aware of the stated purposes. Most simply described the goals of the partnership according to their own guesses and interpretations. Some openly stated that they were very unclear about major purposes:

> I haven't seen anything in writing and have not been in any conversations about it. It is to provide a place for teacher candidates to fulfill their requirement of classroom time, and a realistic setting in a multi-cultural urban setting under the guidance of a master teacher. (Clinical faculty)
>
> I am a little confused. It is not clear to me what the school district has decided is their part of the program, in terms of the new two year program. There is a history of the school district working with novice teachers. I don't know if the lack of organization comes from the school district or university or both. (Schoolteacher)
>
> Among the people I have worked with, very few of them have understood it to much of a degree. None of the teachers I've worked with had a grasp of what the point was. (Novice teacher)

In fact, about half of the university faculty and students, school teachers and novice teachers interviewed believed that there was a lack of clarity about the purposes of the partnership and, although the top leadership shared some consistent views on the goals, most people working in the schools and the university only saw and could speak about different pieces of the partnership. There was no common understanding of what the goals were among participants. One school district administrator pointed out that there was the lack of global conversation identifying the big picture. University ladder faculty felt that different funding made it more confusing for people to understand the goals and scope of the partnership activities. Moreover, a novice teacher observed that everyone seemed to have radically different goals and that was a major bone of contention.

The chief designers and architects of the partnership were very articulate and consistent when they tried to illustrate the goals for the collaboration. The Co-Director of the university teacher education program eloquently described her vision for the partnership:

> The major goal for me is to create this third space, a place for inquiry and action that can fall outside the traditional bureaucratic procedures of university teacher education programs and school districts. That third space is important because it seems that both the education of teachers and school reform usually bog down when either one is confronted with the regularities of the other. It allows us to break through the limits of our regularities and create a third place for dialogue and inquiry. A second goal that is related, the moral purpose behind that, is on behalf of low-income kids of color. The weight of the university, or the third space, can interrupt the power dynamics of how resources are distributed to kids.

The proposition to create a "third space" is very significant in that it has implications for developing a new partnership culture—merging of the school culture and the university culture. What she envisioned was not just a project to reform schools and teacher education but a way of life—a permanent space and culture for both school and university people. This vision was also proposed by other proponents of school-university partnerships (Gomez et al., 1990; Goodlad, 1986; Pine & Keane, 1989; Schlechty & Whitford, 1988). Unfortunately, this vision was not shared by all the participants in this partnership. The statements on goals made by other administrators in the interviews tend to lack such vision and they focused more on specific objectives that they would like to achieve through the partnership:

> The goal of the collaboration is to tap the idealism that young people have of wanting to make change. For me there is no better way to do that than teaching, expose students to the profession, one way is to connect with schools and school district, and the achievement council. I want them to see that they have to look at themselves as change agents. (University administrator)

> The major goal is to have a clear and realistic perspective and objective of university institutes and educational institutes. (School district administrator)

It is interesting to note that the ladder faculty from the university deemed the partnership as one that would benefit schools but failed to see the benefits for the university. This perspective is characteristic of the attitude of many university people toward school-university partnerships (Su, 1990). On the other hand, some schoolteachers as well as some novice teachers saw the partnership as mutually beneficial to both schools and the university:

> The goal is to guide and assist the school district in its restructuring efforts and at the same time, to provide whatever resources we can to the district via the partnership. The resources come through teacher education program, through our courses, through just seeing each other as resources. The partner schools can look to us for resources. (Ladder faculty)

> For university to develop a greater understanding of the realities of education. When I went to the university it was very theoretically based. It was one of the things I hated about it. At the same time for schools to be at the forefront of research and new techniques. (Schoolteacher)

> To infuse schools with new practices and theories. To bring in more progressive ideas to renew and improve what is going on in the schools right now. Schools receive university support—theories and new ideas, and the university program receives new opportunities for its novice teachers. Combining the infusion of ideas for change and student teaching gives novice teachers more opportunities to be what university wants us to be—change agents. (Novice teacher)

Clearly, although they could not articulate the goals as they were stated in the official documents, these teachers had a good understanding of the essence of the partnership. Their feelings for the partnership were highly positive and optimistic. On the other hand, some schoolteachers and administrators were skeptical and critical of the partnership, especially the role played by the university:

> The overtly stated goal is lofty—the idea that the actual front line is the best place for teachers to learn their craft. It should be the laboratory for research, the university wants to engage with schools on that level in a nonhierarchical way. In reality, what is instantiated is a little bit less clear. The university people would like to have their program benefit, but I am not sure the willingness is there from a great many people at the university's school of education. I don't see how it has impacted any professors. To that extent it is just a token relationship. That has been a real frustration on part of people in the district. The people stuck in the middle are the most hurt—practicing teachers, school level coordinators, novice teachers, and team leaders here. (Schoolteacher)

> I think as a school, we got involved out of our concern of the effectiveness of the current preservice education. Teachers were being inadequately prepared for diversity here. The top teachers from the university that were hired … they got a strong theoretical background but didn't know what to do when you come into the classroom. We thought that you needed to have two years, and the second year needed to be in the classroom and paid. A goal of the program is to have a more active partnership between the schools and the university. That is a goal of the program. It is a goal, but we have not made any progress here. (School administrator)

University administrators and professors need to understand these criticisms and frustrations in order to establish a better communication and collaborative relationship with the school people. Since very few ladder faculty from the university are involved in teacher education and classroom research, it is very difficult for such communication to take place. We know already that creating the "third space" is enormously difficult because, as the Co-Director of the teacher education program in this study observed, "It is a space between the two institutions. The university and the district are two circles, like two balloons that keep bouncing together and apart." The school district administrators shared their concerns over the difficulty to move ahead in developing the partnership:

> There is still a lack of clarity and a lack of attention on both parties that is needed to move it forward. It is also because it is really difficult and hard work and takes time, there are a lot of bumps along the way, people are spread really thin.
>
> Our schools have tried very hard. They have worked with students in many ways the total school has been involved in the training of teachers.

Among the schoolteachers interviewed, some felt that the collaboration with the university had a good start and had created a better sense of what schools and community were for novice teachers. They also enjoyed and benefitted from the inquiry activities, social justice meetings, and community forums, although it was difficult for them to attend evening meetings. They recognized that change came very slowly and they demanded more support with "a real budget and a real staff" in order to meet the goals. They also wanted to see more information coming from the university for their own personal growth.

On the other hand, about half of the teachers interviewed expressed confusion and dissatisfaction about the goals and the activities of the collaboration. They complained that they had not been part of the discussion on the partnership goals and had not "scratched the surface of the true collaboration between university and schools." The following are typical examples of their criticism:

> We, as teachers, don't know why we are there (at the inquiry groups). They were never set up with an agenda, and since there is no formulated goal, it is hard to say if we are getting to that place. (Schoolteacher)
>
> There are some serious gaps between what we were told they intended to do, and what happened. For example, making the courses available for us to get a masters degree, meetings between all the schools have come to a screeching halt. I have very little contact with the team leader, and after the placements were made I had no more contact with her. The student teachers don't feel that they have that connection. (Schoolteacher)

Thus, the gap between the ideal and the reality is yet to be met in developing a true collaborative relationship between the schools and the university. A recurring problem recognized by many schoolteachers in this study was the lack of university presence in the schools, although a few university administrators and faculty have made tremendous efforts to be there. Such absence clearly contributed to the lack of communication and understanding between the university and school people. A second recurring theme is the ignorance by at least half of the school and university participants of the established or formulated goals of the partnership. Such ignorance often reduced the essential partnership activities such as inquiry meetings to just another channel for personal complaints.

Substance: Social Justice Education

A major goal of the collaboration was the development of social justice education in schools and the socialization of novice teachers into social justice educators. In the current inquiry, we asked all the interviewees how they define "social justice education" and "social justice educator," whether this definition is shared among all participants in the collaboration, and how we can best translate this vision into reality.

Data from the interviews reveal a range of different definitions of "social justice educators" among different participants, although many people recognized equality, diversity, inquiry, community, and change as the major themes in their visions. The few leaders of the partnership were more articulate about their definitions:

> A social justice educator is someone who has an explicit goal of disrupting the patterns of inter-generational transmission of power and privilege through schools. (Co-Director of the university teacher education program)
>
> It means that novice teachers have multiple opportunities in an urban school setting to understand and develop a way of looking at learning that embraces the neighborhood and views as a major purpose of schooling the promotion of social justice within that neighborhood and ultimately the broader community. (School district administrator)

They admitted that their visions for social justice educators were not shared among all participants. The school district administrators also noted that although the novice teachers might share some understandings about social justice education at a philosophical level, they had not internalized what it means as practitioners.

One of the clinical faculty interviewed appeared not familiar with the term "social justice educators" while another three clinical faculty and two team leaders/doctoral students talked in very general terms about their understandings of equality and diversity. The clinical faculty who was also the leader for the Santa Monica novice teachers team believed that there were multiple definitions of social justice education and that they were historically contingent and tied to ideas about race, and the purpose of education that cut to the very core of people's fundamental beliefs. His own definition was quite elaborate:

> For me, social justice education speaks to how a teacher interacts within her own classroom to instill a sense of justice within the students. I think about how they think about providing access to education, how they think about the relationship between the school and the community. It means taking a stand on who has knowledge and where does it come from, and how it can be tied to broader movements to promote greater equity in terms of voice and power in society.

He observed that in the course of their seminars, issues around equity and race weave in and out of their discussions. They also appear in various forms and activities where the university sought to give novice teachers opportunities to hear the schoolteachers and community members articulate their understandings of education and educational change. Voice and dialogue comprise an important component of social justice education. He cited examples from practice to illustrate how novice teachers were being socialized into social justice educators. These centered around team leaders who often raised questions about those benefitting from certain instructional strategies after observing the classroom. In one elementary school the inquiry group discussions raised questions about different levels of achievement by race. In another school, teachers and novice teachers asked critical questions about resources that were passed on to Anglo and Latino students. Thus, the consciousness of social justice education was raised through inquiry. To some, social justice education should always be a definition in progress, as the ladder faculty stated:

> The word has taken on several meanings over the last year to me. In general you think 'fairness' which needs to be unpacked, whose interests are being served. But someone who can be critical and think of the implications of their acts and at the same time think about the history of inequality in this country and think of strategies to break down the barriers of injustice.... Being a social justice educator is not something that you are born with you have to think about it.

As an African American educator who attended segregated schools, she knew well the reality of injustice, and she tried to play an instrumental role in helping novice teachers to think about what it meant to be social justice educators in the foundation course she taught. She said that the issue was addressed repeatedly throughout the course. However, six of the seven novice teachers (all took the foundation course) interviewed did not feel that there was a clear definition or shared understanding about social justice education. One class member claimed that no one had told her what social justice education was—ever. She suspected that the program deliberately wanted novice teachers to create their own definitions, and she had no idea whether hers was like anyone else's. Two other novice teachers shared her claim and pointed out that none of them had the same vocabulary to define the concept, although they had a common sense of what it meant to them. In addition they were doubtful of the perspectives presented to them by the faculty, as this student commented:

> All of our professors represent one very radical stance on educational issues. We are not exposed to others with differing viewpoints nor do we discuss them. In this way, we are being socialized, or I'd say inducted into a cult. Not that I am against the ideals, but I'd like to feel better armed in defending them to others who may not share them in the future.

Their concerns suggest that perhaps different schools of thought, instead of one school of thought, should be presented to the students in the foundation courses and opportunities should be created for the students in critical discussions of different viewpoints so as to help them clarify their own thinking and develop their own arguments and beliefs regarding the social justice issues. While some novice teachers claimed that by participating in the community activities and conducting case studies, they were being socialized into knowing how hard it is to be a social justice educator. Others felt that they were not being socialized into the demands and expectations of being social justice educators, and because of the school experiences they had had, focused less on social justice than lesson planning. They observed that, although the novice teachers were getting the views and opinions of what social justice means from the university, they had not delved in depth into what social justice means with their personal schools and communities. Thus, there was disconnection between the ideal and the reality, even though the education foundation courses offered by the university faculty may be enlightening to many novice teachers in terms of social justice education. One thing that the university had attempted to do was to demand that novice teachers spend their internship year in specific schools. It was felt that this would be more "socially just" than others. However, "a rebellion" ensued among the novice teachers. All of these issues need to be addressed in order to improve the social justice teacher education program.

Only one novice teacher came close to the vision articulated by the administrators and faculty, although her definition still lacks an understanding of the essential issues related to equality and diversity:

> Social justice education to me is basically teachers who sees their role beyond strict academics—trying to see the whole education of the child, beyond the three R's, to assist the child beyond the school into the whole world. Social justice education is you recognized that as one of your roles as a teacher, you need to give the children tools such as critical thinking, developing a healthy skepticism. And that you model this to your students. You engage in reflection, practice what you preach. Social justice education is a person who seeks out where the need is in schools.

Another novice teacher, a minority candidate, claimed that from the very beginning, the university teacher education program had focused on the idea of the social justice educator and had defined it clearly for the novice teachers. Nevertheless, she did not agree with the idea of a social justice educator:

> Just the mention of 'social justice educator' turns me off. We were heavily immersed into this idea during fall quarter in several of our classes, and it is frequently referred to by the university staff . . . I don't think a term such as 'social justice educator' is necessary. I don't think the main purpose of schooling is to focus on race, ethnicity, or other political issues. I think it should focus on basically helping children become 'all that you can be' and that's done through good teaching. I think good teaching should include many things.

In general, the novice teachers did not have clear ideas regarding how they could translate a vision for social justice education into reality. One equated social justice education to being fair and suggested that, individually, a teacher should do the best job possible. Another said that it could be done through good teaching, which meant creating an environment in which all students were given many rich opportunities to learn and to be excited by learning. A third believed that a social justice educator was someone who could use as many intelligences as possible in assessing children in trying to teach them basic skills, who could make all students competitive with each other, who could foster tolerance in the classroom through the introduction of diverse cultural knowledge, and who could help students to think critically about all that they were learning and the world in which they were living. However, he noted that he did not see it actively pursued by people he worked within schools.

To move from definition to action, two novice teachers commented that lots of discussions, social justice evenings and community forums could help translate the vision for social justice education into reality, but still they did not know how to achieve the ends specifically. Another suggested that the program should clearly state its mission and purpose and provide continuous support for the students once they start teaching. The tools and support are most important in helping novice teachers become social justice educators in an environment that does not necessarily support its practice. Finally, one novice teacher observed that their projects in working with the community helped her grow the most. Apparently, all of these activities need to be further developed in order to help future teachers make the connection between theory and practice and between ideal and reality.

Since the novice teachers spent much time every day in the partner schools, the schoolteachers and administrators could exert much influence on the development of their fundamental beliefs, values, and attitudes. In fact, previous research identified field experiences and mentor teachers in schools as the most important source of influence in their socialization process (Su, 1993). In this study, the school people interviewed held varied opinions with regard to the social justice education/educator issue. Several of them provided clear and thoughtful definitions that were close to the visions articulated by the partnership leaders and university faculty:

> A social justice educator is one who understands power structures and understands society structures and tries to create a different kind of environment where those power structures are not reproduced and get to experience a world without prejudice, at least within the classroom, so they can experience what that is like. They get more secure in who they are, not only racially, gender and socio-economically, but they also get to respect others and celebrate those differences. (Schoolteacher)
>
> … a person who believes that every child is entitled equal access to whatever thing this is that we call "education" and allows people to function and negotiate society. It is letting schools follow the same tenets that we say we believe in when we say we are living in a democracy. It is a close look at what we are teaching and leads to people's liberation. (School administrator)

One teacher also cited an example from the classroom—a discussion of Carver and Caesar Chavez that linked the discrimination against Carver to discrimination that illegal immigrants are experiencing today. However, most school people felt that the vision for social justice education was not shared among all their group, novice teachers, and university participants. They pointed out that the vision was shared more among the people who had been directly touched by university people, but they did not see the spill over effect to teachers who had not been working with novice teachers. Again, they were critical of the university's detachment from the actual schools and its unwillingness to take part in authentic research in the schools. They noted, as the novice teachers had observed, that it was hard for the novice teachers to be exposed to the ideas on social justice education in theory but not to experience them in schools. They pointed out that involving novice teachers in the inquiry activities and community projects were important first steps in socializing them to be social justice educators.

At least half of the school teachers/administrators interviewed expressed ignorance, ambivalence, or dissatisfaction about the definitions of social justice and the ways it was addressed in the schools:

> I have vaguely heard the term used. It is creating an educator who is sensitive to diverse needs of their students and who is committed to changing inequities. Spanish speaking parents would not know; it wouldn't been very meaningful for them. (Schoolteacher)
>
> ... Have not been involved with social justice.... I am not on the steering committee. There were two elementary school principals who could be on the committee. I don't feel that connected to the process. (School administrator)

Our findings demonstrate not only ignorance of social justice education issues among these practicing teachers (which explains why some novice teachers were equally ignorant) but a severe lack of communication between the university and school people and between teacher educators and novice teachers. It reveals a very disturbing relationship between the schools and the university. In one particular school, all four teachers interviewed said that they had not heard of the term "social justice education" from the university, although one of them was able to articulate a personal vision of social justice education. In another school, the two teachers interviewed were very cynical when they discussed social justice education. They compared it to the anti-bias curriculum movement in the past and said that novice teachers and in-service teachers in their school saw it as "this year's buzz word." One teacher from another school also equated social justice education with "non-biased curriculum."

In general, there seems to be a lack of articulation and communication about the definition and vision established in the official documents for the partnership and shared among a small group of people most directly touched by or connected with the university. There are also different levels of understanding about social justice education. As one school administrator commented, "We have three levels; some are there, some are not opposed to it but just don't understand it; and then there are some who have real opposition to it, but they are hanging in there which says to me they are not so opposed to it but it is hard for them."

Substance: Inquiry as a Means for School Reform and Teacher Education

Regardless of their different levels of understanding, many of our interviewees agreed that the best way to socialize novice teachers to be social justice educators was through their participation in the inquiry activities in schools. These were initiated with the explicit purposes of school reform, community involvement, and teacher education improvement. In fact, the current literature on Professional Development Schools strongly advocate inquiry as both a basis and result of PDS-based reforms, although there is little evidence of educators engaged in self-reflection regarding their beliefs about equity, diversity, and social justice issues (Valli, Cooper, & Frankes, 1997). Delpit (1995) describes the critical importance of inquiry and its relative absence in our schools and colleges of education:

> Nowhere do we foster inquiry into who our students really are or encourage teachers to develop links to the often rich home lives of students, yet teachers cannot hope to begin to understand who sits before them unless they can connect with the families and communities from which their students come. To do that, it is vital that teachers and teacher educators explore their own beliefs and attitudes about non-white and non-middle class people. (p. 179)

To the credit of the partnership, all the novice teachers were encouraged to participate in the total life of the school, by attending all school functions—district meetings, faculty meetings, parent nights, back to school nights, and outreach community events—where inquiry was intended to be the major theme and process.

The Co-Director for the university teacher education program strongly believed that inquiry was the tool that would lead to reform and restructuring at the schools. She observed that inquiry had begun to disrupt the conventional notion that teaching was "just a bunch of practices," and inquiry offered the novice teachers first hand experiences with school teachers who were asking questions and revealing these uncertainties and the complexity of their questions. However, not all her colleagues from the university shared her conviction and enthusiasm. Three clinical faculty and one team leader claimed they did not know or did not have information about inquiry. One team leader felt that novice teachers should not participate in inquiry because there were a lot of private issues that were being discussed, and novice teachers were regarded by schoolteachers as outsiders.

In reality, teachers' participation in inquiry varied according to individuals. It also varied by schools. The ladder faculty who had conducted research on the inquiry process in the middle school observed that the inquiry activities involved many teachers and developed a foundation of trust and a community among teachers and administrators. Still, some teachers were excluded and she felt that everyone, including students, should be involved. In another school, where a university graduate researcher did her observation, the inquiry group was "way too big" and the relationships among teachers were fractured. They voted no confidence for a proposal to change pupil free days, and many of them did not want to come back to the inquiry group. Still, most of the university teacher educators interviewed felt that inquiry has profoundly helped novice teachers understand student interests and concerns and stimulated their involvement in schools.

The school district administrators were very optimistic and enthusiastic about the effects of inquiry on school reform and teacher education restructuring. The school district put considerable funds into developing various inquiry activities. They believed that inquiry was the only possibility for any kind of significant systemic change because it stimulated the necessary reflection on the existing practices. When master teachers examined their own practices and started to make changes in their classrooms, those changes impacted the novice teachers. In return, the conversations that novice teachers had with their master teachers would tie into the master teachers' reflection on their own practices. They noted, however, that inquiry had caused some discomfort among different generations of teachers and that inquiry did not trickle down to the teachers in places where they were not part of the process.

The inquiry activities also involved parents and community representatives. The district office sent out 10,000 invitations to every parent and welcomed them into the schools to talk with them rather than talk "at them." District administrators observed that a powerful element proved to be parents of color openly sharing their beliefs. It was powerful for novice teachers to hear their beliefs and the poetry of their beliefs. It was felt that this was one of the most successful changes in the schools and the community.

The schoolteachers were split in their observations of inquiry. Some were very positive about it and considered it "the best professional development" they had ever had, and "the best part of the partnership" because it had helped to empower teachers and parents:

> I think the idea of inquiry gives the teacher the chance and the time to be a professional; this is an added time where they could talk to colleagues and be able to share ideas and learn more about what it is all about. When you are in your own classroom you are just by yourself. When you are in inquiry you can learn what is going on outside your classroom. I think that is the most important thing.
>
> I think inquiry is the best chance we have to making systemic and sustainable change because it comes from within rather than top down. We are often

> inserviced rather than given the opportunity to explore as professionals what our roles are.

Some teachers observed that it would take a long time—three or five or seven years—for inquiry to have a profound impact on teaching practices in schools. They saw some small, gradual, and individual changes, yet not major restructuring efforts. They suggested that the inquiry group should be more practical, delving into every day personal school situations. They found the existing content too philosophical.

About half of the school teachers/administrators interviewed were critical of the inquiry process. They felt that the inquiry meetings were frustrating and nonproductive, and they expressed feelings of "change pains" and "growing pains":

> The biggest problem is that inquiry is just another thing that has been added on to a very full plate. We have talked about a team feeling, a community among us, in our school as we are going through changes we are experiencing growing pains. What is built in inquiry has been undermined because there hasn't been a feeling of trust. I would like to see more members of staff participate. I wish the inquiry group should be able to do what they want, but they still feel like they have to ask the district. No university people participated in our inquiry.

> We are trying, we have a very split staff. The ones that are in inquiry want to change and make things better, and those who don't participate don't want to change and believe that when things don't work it is someone else's fault. It is hard when not everyone participates.

The schoolteachers and administrators were also split in their observations of the effects of inquiry on novice teachers. Apparently, novice teachers were invited to participate in some but not other inquiry meetings, and most simply sat there silently as schoolteachers discussed different opinions. Some schoolteachers encouraged novice teachers to disagree with them. They were interested in novice teachers' "fresh perspectives," but they observed that most novice teachers were overwhelmed and felt that their voices were not as legitimate. This was due to novices' impression that they were surrounded by people who know more, so even though they were encouraged, they did not participate in the beginning.

Other schoolteachers felt that it was ill conceived for novice teachers to begin to participate in inquiry early in their training program when they hadn't had much in theoretical learning or practice. They suggested that novice teachers should not participate in inquiry until the second year and observed that the social justice series inquiry (the evening community forums) simply did not work for novice teachers nor did it meet their needs:

> The novice teachers did not have an idea of what their role was in inquiry and there was no one to help them or school staff to understand their role. And coordination is hell and really time consuming. When the social justice group was held there was limited involvement, but I didn't know because I didn't attend the other meetings. The school sites don't have a clear understanding of what it is. I don't think the parents do.

In fact, some schoolteachers felt very uncomfortable when novice teachers were present at the inquiry meetings because "it can be very personal, so having novice teachers that you don't know as well, it is invasive." They suggested that novice teachers should join the inquiry group after they had established trust with schoolteachers and both felt safe enough to speak honestly and freely at the inquiry meetings.

The novice teachers interviewed had all been involved in the inquiry activities—social justice evenings, parent surveys, and community forums. Most expressed positive feelings about these activities:

> During inquiry meetings with staff and the university researcher, I definitely see change happening. The ideas now present in the schools are challenged and discussed. At one inquiry meeting, the university researcher challenged the staff to 'unpack' their 'theoretical bags' in order to repack in a different manner. Teachers were very willing to change.
>
> I was 100% engaged at the school. I was invited and welcomed into the inquiry process as an innovative and different voice for them to listen to. Throughout the year I felt I learned more every time I sat in inquiry meeting and I think a large part of the closeness I felt with the school came from my time in these discussions. I really enjoyed it.

Meanwhile, most felt that the time spent in the community meetings was too brief for them to learn anything specific except to see that it was possible to bring parents in to talk about their children's education with teachers. One obstacle to their participation in more inquiry activities was the time conflict between the student teaching assignment and inquiry meetings, while another obstacle seemed to be the lack of invitation in some schools from schoolteachers to novice teachers:

> I was really eager to attend inquiry but then it became one of the few times that I could be in the classroom alone without the mentor teacher being there, and I considered it a great opportunity to be there student teaching. I also felt as if some of the teachers had a problem with our presence at inquiry.
>
> We weren't allowed to go to the inquiry at the school but I did attend the faculty meetings. That's all I really had a chance to do there. I got involved with the liaison and some of her work. But beyond that there wasn't enough time or they didn't allow me to get involved with the critical inquiry that they were doing.

Thus, novice teachers' participation in inquiry varied depending on the schools and teachers. Some were 100% engaged while others were not allowed or invited by teachers to attend inquiry. Schoolteachers expressed uneasiness and lack of trust as the reasons for not having novice teachers at their inquiry sessions. Clearly, there is the need to establish trust between schoolteachers and novice teachers before they can both benefit from the inquiry activities.

Both schoolteachers and novice teachers were concerned about the lack of university involvement in the inquiry process "other than the novice teachers, the inquiry leader, and the team leader sitting in at the meetings." They pointed out that the social justice community forums would be more helpful if more members of the university participated besides the team leaders.

Some school teachers and novice teachers believed that the inquiry activities had already resulted in certain changes in the schools, although the amount of change may not have been as great or as direct as the proposed reforms. The most obvious change, one novice teacher observed, was that:

> The inquiry meetings challenge what teachers already know and do—they really get to the bottom of the issues. Why do you do this or that? Is it useful? So it gets teachers and administration thinking about what they are doing and challenges them to try something new.

Another novice teacher commented that the dialogues that took place among all of the teachers and administrators in schools seemed to affect the school community in a positive way because the teachers' voices were heard and generally acted upon. Thus, when inquiry is productive all participants can learn, and their practices as well as their schools can change, although slowly.

However, in some schools, the inquiry turned into a "major bitch session" and "nothing real resulted from the meetings." Some schoolteachers and novice teachers felt that inquiry was a "waste of time" and things were not moving along the way they were supposed to, "talking loud and saying nothing." They doubted that if the inquiry activities worked toward any partnership goals.

Leadership and Organization of the Collaboration

It is clearly demonstrated by the description above, the collaboration between the university and the schools in this study was more of a process than a structure or organization. There was the creation of CUTEI with its officially stated aims and goals and a steering committee consisting of representatives from the schools and the university (which met regularly to discuss various matters concerning the partnership). The Steering Committee meetings stopped in the second year of partnership development. There was no formal partnership secretariat or governing body with a designated director and staff to run its everyday operations, as is the case with many formally established partnerships between one university and multiple schools across the nation (Berry & Catoe, 1994; Su, 1990; Wiseman & Nason, 1995). The university teacher education administrators, the school district administrators, and the two liaison persons designated by each side had been coordinating all the collaborative meetings and activities for this partnership.

When we conducted this inquiry, many interviewees felt uncomfortable about the term "partnership." They preferred to use the word "collaboration" when they described the joint activities, though we have used the two words interchangeably in this report. According to their own accounts, leaders from the university teacher education program and the school district office were very committed to the development of meaningful collaborations. They met regularly to try to make sure that the connection between the two institutions was maintained. The Co-Director of teacher education program tried to let school district leaders know what she had been thinking about state policies and priorities that were approaching in the universities that might affect their work together and to reflect with them on how things were progressing. She also met with the steering committee, where she was often the focus for the "official word" for what the university could do in regard to resources. She met regularly with the clinical faculty who did the day-to-day work with novice teachers and inquiry at schools to understand the connections between inquiry reform and the role of the partnership. Moreover, she and the team leaders for the novice teachers met several times a week regarding every level of the partnership functioning. In addition to working with the partnership, she described her work as doing a lot of hand holding with the "care and feeding" of funders in order to generate outside money to support the partnership work. Summarizing her experiences in the past year, she made a poignant observation about the leadership and direction for the partnership:

> The direction for the partnership has to emerge from the inquiry and conversation. I don't think action gets taken from this mass without some leadership. But district and university leaders need to listen carefully and then propose the direction for the partnership. It is a combination of listening very hard to the directions people seem to be seeing as promising. It is very hard because of the whole issue of power and how people use power, and how hard or naive it is to try to step away from that. I am beginning to wonder if the steering committee is a good idea, because the information doesn't

> leave the steering committee. Maybe it should be regular inquiry about teacher education.

Her concerns were shared by some other interviewees who felt that the Steering Committee did not serve its purpose well. For example, the Steering Committee failed to pass on the university invitation to schoolteachers to participate in teacher education classes for collaborative inquiry and research. A university professor recommended the "dismantling" of the Steering Committee and suggested, as a replacement, the establishment of a community space for decision making at the school site. A consultant for the partnership, another university professor, also recommended the creation of non-bureaucratic environment for the partnership. However, there was also the need for structure so that school and university people could share common knowledge and see how different pieces interrelate.

The majority of the clinical faculty and team leaders from the university felt that they were not involved or only minimally involved in the decision-making process in developing the collaboration and expressed the desire to have their voices heard. The team leader for novice teachers in the school district played many different roles for the partnership and had frequent contacts with school people about what was happening at their school sites. He pointed out that when they sought to be inclusive across school sites, meaningful decision making fell apart and became bureaucratic. He argued that the Professional Development School was different from having multiple schools involved and that schoolteachers should make choices and decisions for teacher development through school-by-school inquiry rather than have decisions made for them by bureaucratic structures such as steering committees.

There was a lack of consensus on the purpose of the Steering Committee. The university people saw it as a site for inquiry, while the district administrators and school people saw it as a decision-making body for the partnership. School district administrators commented that working together with university people at the committee had shifted their paradigm and given them the tools to advocate for the partnership. These administrators strongly believed that the school district and the university should collaborate closely in setting the directions for the partnership because both sides had really valuable information and perspectives to bring to the conversation—the theoretical perspectives from the university and the reality check from the school district.

Most schoolteachers interviewed said that they were not involved in the decision-making process for developing the partnership and some were critical of the Steering Committee and university's role in it:

> At the Steering Committee we didn't make any decisions. Everyone had his/her own agenda, it is sometimes ineffective. You have to have a steering committee, there has to be representation, there has been a lack of leadership in the meetings, somebody has to chair it. Sometimes the school people get upset that there aren't university people there. It is frustrating when there is no agenda.
>
> The Steering Committee was made up of all the constituencies and we did it. It seems now that the steering committee is more towards inquiry—there hasn't been as much decision making. Now a high up university person and a high up district person get together and make decisions.

Clearly, the Steering Committee had not been sufficient and effective as the leadership council for the partnership. Schoolteachers felt that most of the decisions were made by the top leaders without consultation from the schools. They argued that teachers, especially mentor teachers for student teachers as well as novice teachers, should have a strong voice in decision making along with their principals and school district administrators. Furthermore, they believed that schools and the university should work together on an equal basis. They perceived the current leadership for the partnership as "set up by the university. The only thing the district decides is if there is space available and where should people go."

Like schoolteachers, most of the novice teachers interviewed also felt excluded from the decision-making process in the collaboration. They expressed frustration and even "outrage" for some of the programs/activities decided for them without their input. The only novice teacher who sat on the Steering Committee had mixed feelings about the Committee's work:

> If the Steering Committee had been more successful in working with the students, I could have seen that as being a major help toward the satisfaction and positive results in the program. In the beginning I was asked, because I was the only available student that they happened to find, to be on that committee. I happened to be at the school that day and they pulled me aside. I then took the initiative and asked to remain on the committee to see what the administrators and university leaders were discussing with the school district. I had thought it would be more of an opportunity to learn about the effects of the partnership on novice teachers. I have since seen that that is merely a part of the program. As a novice teacher on the committee I felt that I was heard and respected, but my thoughts weren't taken into consideration when things were being planned. I still feel I'm a good representative of the novice teachers and, therefore, would have been an invaluable voice in the committee. I'm technically still on the committee, but, as of beginning of spring quarter, my classes were scheduled in conflict with the meeting times. I didn't see much of an effort to try to change the times so that any student, or novice teacher, could have been involved, not just myself. I understand scheduling is a major undertaking with the university

> and the school district but thought that something could have been arranged at least once or twice a quarter.

Other students echoed her concerns and argued that novice teachers' feedback was very important for improving the collaboration between the school and the university. One of these voices offered a thoughtful suggestion for improving the leadership of the partnership:

> They should have one person at the university whose only job [it is] in the world (not the Co-Director who is managing teacher education program, not the clinical faculty and team leader, who is teaching all the time), but someone whose only job is to facilitate the collaboration. It's a lot of communication and getting people together and being part of it.

This is a significant voice that needs to be taken into serious consideration. Many of the school-university partnerships across the United States have full-time directors with a full-time or at least a half-time secretariat whose everyday mission is developing and operating the partnership activities (Su, 1990), because collaborations are hard, time-consuming ventures (Darling-Hammond, 1995). The partnership under study has been developed with strong commitment from some institutional leaders both in the university and in the school district, but none of them could devote his/her full time to the work of the collaboration as each has numerous other responsibilities in his/her own administrative/academic position.

Although there was not one institutional leader whose sole responsibility was the work of the collaboration, there was one clinical faculty/team leader from the university who devoted all his time to developing collaborative activities and socializing novice teachers. This key person was regarded by the Co-Director of teacher education program as:

> the keeper of the social justice dream. He articulated the link between teacher education and inquiry and communities of color and he also acted those links.... He has played an important role as far as they are concerned. He also listens, he really has his ear trained on how people are feeling about things and what kinds of issues are coming up and comes up with creative strategies for addressing the unexpected.

The school district administrators considered this clinical faculty's role as "integral" and needed to be further expanded. In fact, he not only taught and led novice teachers but also worked on neighborhood curriculum, case studies, portfolios, sponsored the community forums, and coordinated social justice meetings and the urban book club. Other team leaders were not as active, and the school district administrators recommended that they should be persons of high enthusiasm for what happens at the school sites (not just see it as part of their job) and persons who could work with both novice teachers and guiding teachers in schools (which had not yet happened at many sites).

All four team leaders interviewed considered their primary roles as being supportive mentors for novice teachers—"a critic, a challenger, a shoulder to cry on"—and as liaisons between the university and the schools. In addition, the key clinical faculty had extra responsibilities as the coordinator of all the team leaders and the contact person for school and university administration. He saw his role in part as engaging the novice teachers and school teachers in community meetings and in discussions about different meanings of social justice so that they could develop their own understanding. Those ladder faculty who were interviewed observed that out of all the university people, the key clinical faculty had more continuity in all the activities of the partnership. It is not an exaggeration when a graduate student assistant called this clinical faculty a "major decision maker and the right-hand person" for the Co-Director of teacher education program. Unfortunately, since he did not have a tenure-line faculty position at the university, such a key person with a critical role for the collaboration did not enjoy high status or equal status as the ladder faculty in the university. He was not invited to faculty meetings or retreats. In fact, teacher education was rarely brought up as an important item for discussion at university faculty meetings. Most of the ladder faculty did not know team leaders/clinical faculty for teacher education or their work in the partnership.

School teachers and administrators held mostly positive opinions of the work of the team leaders, especially the key clinical faculty member, who was viewed as a "wonderful person, a good listener to every need," "a sounding board," "a carrier of the vision who models what inquiry is like in a gentle manner," "a tremendous asset," and "a positive and calming link." At the same time, they felt that this key person was burdened by too many responsibilities and had too many directions to go—"there needs to be four of him." Moreover, the key clinical faculty member had been to some classrooms and schools but not others, and those from the schools not frequently visited by him or other university people complained:

> He (the key clinical faculty) has been here a couple of times. I invited him to our preservice, and he came. Most people here don't know who he is. He hasn't been in any classrooms. I don't think they know what we are dealing with and struggling with.
>
> The key clinical faculty—I see his role as a go-between for us and the university but I have only seen him twice this year. I always get the feeling that the right hand doesn't know what the left hand is doing at the university, which bothers me for the novice teacher. The few times that the key clinical faculty

> has been here and listened to us, the listening has been successful even though he has come to us with an already formulated plan.

Schoolteachers and administrators expressed the wish that they would like to see more of the key person in their schools and that his job could be stable from year to year. They were not happy about the fact that the key clinical faculty had to work only part time for the program in the second year. School personnel were also critical of the "weak link function" of some team leaders and clinical coordinators/doctoral students from the university because they did not see much of them after novice teacher placements nor did they work together in the training/mentoring of teachers. School people complained that some team leaders/clinical coordinators did not have the understanding of the classroom because they did not spend 20 years in the trenches, noting that "they don't know enough about a public school classroom, and their textbook answers don't work for students who have questions about classroom management."

Novice teachers, who had the key clinical faculty member as the team leader, saw him as the "biggest link between the university and the school district," "a major factor in the partnership," and "doing an admirable job." They also observed that "he has a tough role," "often has to take a lot of flack," and that "he was so busy doing so many things, the link was weak most of the time."

Besides the key roles played by the key clinical faculty member and some team leaders, the leaders in the partnership invited a few "outsiders"—scholars/consultants from outside of the school district and the university—to come to the schools in order to facilitate changes and collaboration. They were called "critical friends." The Co-Director for the teacher education program believed that the two outsiders—critical friends—had both had a strong influence on the partnership in that they offered an outsider's perspective that was informed by frequent engagement with other universities and schools. The Co-Director trusted and confided in them, regarding one as "a valuable source of insight in how the partnership is viewed by the teachers and principals," and the other as "an ideal champion of inquiry-based reform." The school district administrators were also enthusiastic about the "provocative" presence of the outsiders in their schools, but at the same time they saw the outsiders' roles as "hard" and "very difficult" because they needed to ask probing questions, which could only happen after they established and maintained really strong relationships with the inquiry groups.

The majority of the clinical faculty and team leaders from the university did not know about the critical friends or had a chance to get close to them to understand what they were doing. The one-team leader who played a key role in the collaboration was familiar with the critical friends' activities and considered them as strong support to the inquiry process and "another set of eyes that can look at how the teacher education effort connects with broader change initiatives." The ladder faculty also got to know the critical friends well and saw their roles as "instrumental to get teachers to talk about what they do and what issues they are grappling with." The lack of contact and connections between the significant outsiders and the majority of the university people involved in teacher education should draw attention from the partnership leaders.

For this inquiry, we thought that most of the schoolteachers and administrators would not tell the differences between the outsiders and the university people, so we did not ask them to consider the roles of the outsiders. We did, however, ask novice teachers what they thought of the critical friends. About half of them spoke favorably of the roles played by the outsiders:

> He (a critical friend) has allowed the novice teachers to see things in different ways, different fashions through different lenses. He had a way of turning a really horrible situation into something that was actually really positive.... He taught active listening skills and communication skills to the teachers in inquiry.
>
> I think that he (a critical friend) facilitated inquiry in a way such that serious issues were discussed, not only about specific school issues, but about broad social justice concepts and theories as well. He really helped student teachers and teachers think about social justice and about connecting theory to practice.

The other three novice teachers were not sure if the outsiders had any direct effect on the training of novice teachers. However, they still considered these critical friends' presence in schools as invaluable in adding a different dimension and in promoting changes.

Funding for developing collaborative activities came from several sources. First, about one third of the university's core money for teacher education (as well as two private grants from the university) was spent on the partnership. Second, the school district and the university collaboratively wrote a grant to the state that funded the creation of the CUTEI. The school district also provided in-kind support through the participation of school district and school administrators. While the university people had not heard of any complaints about a lack of funds, the schoolteachers and administrators felt that they did not have enough resources to develop social justice-related activities at the school sites. All agreed that resources were a key factor in developing and maintaining long-term collaboration between the schools and the university. However, very few participants knew about all or any of the funding sources.

Commitment to the Collaboration

The success of a school-university partnership depends to a great extent on the commitment of all its participants (Darling-Hammond, 1994; Mehaffy; 1992). These university administrators who were interviewed felt that they had made "enormous commitment" to the partnership in terms of faculty time and resources. The Co-Director for the teacher education program spent 20% or more of her time on partnership activities, and there were a "disproportionate number of clinical faculty attached to the partnership." The former Dean for the School of Education called the partnership a "wake-up call to the University regarding its commitment to communities," and made the partnership project the most visible evidence of the university's engagement with the Annenberg challenge in California. He gave the teacher education program director "virtually unlimited political resources" in terms of shaping the partnership in a direction that was believed would work. He showed up to trumpet the partnership effort whenever there was a potential funder for the partnership. In addition, the partnership was talked about as important to the university outreach and was also enthusiastically supported by the vice chancellor for academic development.

At the Department of Education level, the Chair was pleased that a new teacher education program was being developed, but he also worried about the deflection of resources away from the Ph.D. students to more practice-oriented programs. Most of the faculty members, especially senior faculty from the Department of Education, did not participate in the partnership activities. It was not clear whether they knew that the partner schools were welcoming sites for the professors and doctoral students. As the team leader for novice teachers in the partner schools observed, teacher education and school reform were inherently local activities and ran at odds with the broader paradigm with which research universities operate. The ladder faculty who were interviewed were clear about the commitment made by the university administrators and felt that it was something to be proud of, but the clinical faculty did not know much about the university commitment. One person felt that, although some faculty and leaders had been committed to partnership activities, the university as a whole was not.

University administrators interviewed believed that they were very committed to the partnership but that such commitment was not always salient or intense in the school district. However, school district administrators claimed that they too had "tremendous commitment exemplified by time and resources" to the development of the collaboration—"a lot of time and effort went into it." They recognized that, given the realities of too few people and too many issues, the partnership did not receive the attention it needed. For them, collaborating with a university was something very different from what they had done in the past. They never collaborated with anyone, only did "a lot of internal kind of stuff." Administrators would like to spend more time but felt "real stretched" already. In addition, they viewed the university commitment to the partnership as great and with a considerable well meaning but, nevertheless, only "another thing in addition to what they are doing." They also saw the need to work out how the school and university people could value one another, how they could reallocate the resources, and how they could have a joint agenda rather than their own individual agendas.

The school teachers and administrators' reaction to the questions regarding the schools' and university's commitment to the partnership were mixed. Most of them believed that the schools and school district had made strong commitment and considerable efforts. They cited as examples the time spent by school district administrators on collaborative activities and support for release time for teachers to participate in inquiry. Six of them also praised the university for its commitment to inquiry and teacher development in schools. They were particularly impressed by the novice teacher involvement and the full-time presence of a clinical faculty/team leader in their school inquiry and change activities. However, most of the other school teachers and administrators were critical of the university commitment and involvement:

> I feel like the university hasn't made a tremendous commitment. They have not acted upon our suggestions—like communication. Their value of us as guiding teachers is not shared or expressed.
>
> I think the university talks the talk but doesn't always walk the walk. The clinical faculty and others say the right things but [it] doesn't follow through. We had problems with our site coordinator—e-mails and phone calls were ignored. I asked not to be observed or involved, but they placed someone here anyway. Things that come up in the Steering Committee never get acted upon.

There is a huge gap here between these observations and the views held by the university leaders and faculty and school district administrators about the university's commitment to the partnership. In fact, the strong dissatisfaction of university's role in the partnership is a consistent theme in the responses from the schoolteachers and administrators in this inquiry.

Communication in and beyond the Collaboration

In some ways, the dissonance in the views expressed by the university and school people in this partnership resulted from the lack of communication between them. The statement, "It's not enough," summarizes the general sentiment that most interviewees shared about communication.

Previous studies of school-university partnership found that the more people communicate with each other, know about the various projects, and participate in collaborative activities, the more committed they were to the partnership in general (PSEC, 1990). Recent studies of the development of Professional Development Schools also conclude that it is very difficult to establish and maintain lines of communication, shared understanding, and trust among all participants (McGowan & Powell, 1993), and that communication is sometimes a problem, even among participants within the same institution (Wiseman & Nason, 1995).

The major means of communication in this partnership were regular telephone conversations between university and school district administrators, steering committee meetings (attended by representatives from both sides), e-mail, and informal conversations among different participants. The Co-Director of the teacher education program felt that people's frustration with communication might be caused by their discomfort with ambiguity, by efforts to move away from a rule-bound bureaucratic program, and by the lack of social skills to make people feel comfortable with ambiguity. The school district administrators believed that having more of the university people in schools would help create a natural communication process. They also suggested that there should be a newsletter so that each party could put something in writing to let others know what was happening each week or so. In addition, they recognized that there needed to be greater clarity about the partnership in the community, and this should be accomplished by something that was done at a personal level in order to address different constituencies. Some people thought that it was premature to address the community until internal communication problems were ironed out.

Team leaders for novice teachers believed that they served, in their own words, as the "primary links" and "conduits for communication between the university and the schools." Yet some schoolteachers observed that they did not have much contact with them. This was in part due to personal problems that one team leader had. The team leaders suggested that there should be a large orientation for mentor teachers from all schools to foster a sense of the partnership. They also wanted more press releases and maybe a weekly column in the newspaper on partnership activities. Moreover, one team leader hoped to create an informal reading group where university ladder faculty and schoolteachers could converse with each other. However, he realized that there were not many ladder faculty who would want to do it or whom he would want to have participate.

In contrast to the team teachers who viewed themselves as key links in the partnership, the clinical faculty appeared to be the loose link. They expressed the frustration about the small amounts of communication they had with the mentor teachers in schools. This group also seemed to be in loose touch with most other groups of participants in the partnership and was the least knowledgeable about partnership matters, as has been revealed by their responses to many of the questions in this inquiry. Ironically, others assumed that they knew, but, on their side, it felt like "it is a sort of fait de complete, it is set up and we know [it]." They would have liked to know a lot more about the partnership, be included, and have more input into it. Suggested were one or two major events each year on the school sites that could enable them to be involved on site and to have face-to-face meetings with schoolteachers and parents. Also proposed was established bulletin boards and a hot line for novice and mentor teachers where questions could be asked and communication with each other be made more easily.

In general, schoolteachers were critical of the means of communication in the partnership. They used words such like "ineffective," "scarce," "no form," and "word of mouth" to describe the existing communication. One teacher illustrated the problem well, "I'm the most informed person here, but I have no clue 70% of the time." A few teachers identified the Steering Committee meetings as sites where representative university and school people communicated with each other. Others felt that the Steering Committee had been "ineffective and a waste of time" for schoolteachers. Moreover, they expressed frustration over the vagueness of partnership goals and objectives as a result of poor communication:

> The communication has not happened. I would like to know what I am supposed to be doing. They expect teachers will do what is best. I need somebody to tell me you need to observe so many times. It has been alluded to in a vague way.... I feel like I have been cast adrift. There is the feeling that things are being made up as we go along.
>
> Not enough nuts and bolts are written down—who does what, and who is accountable for different jobs with novice teachers.

One school administrator observed that the site coordinator's role is "pivotal" because he or she served as a critical link between the school and university. Unfortunately, most school people had no direct communication with the university people. As one schoolteacher pointed out "the communication between the university and the schools did not filter down to teachers. The university people have a lot of nebulous plans, but they never receive any type of input from people in the field." In addition, the school people were worried about the high turnover in personnel at the university and doubted that there could be enough continuity. They questioned the values and sincerity of the university in developing the partnership, as one teacher lamented, "The main thing that I am not really sure of is that the university actually values teachers. I still think that teachers are looked at lower on the totem than researchers and university staff."

Despite their criticisms, the school teachers/administrators recognized that communication is "crucial" for the success of the collaboration. They recommended the use of newsletter, bulletin board, e-mail, more personal contact, more sharing of information, more publicity in the news media, community/parent involvement in decision making (e.g., to have parent representative on the steering committee), forums/discussions, and increased release time for the school liaison person to improve communication. Development of a flow chart or a tree that shows the different levels of interaction (so as to present "a clearer view of where district, administrators, teachers, and novice teachers fit in the puzzle") was suggested.

Being in the partner schools every day, novice teachers frequently heard schoolteachers' complaints about the ineffectiveness of communication and the lack of information. In general, the complaints were directed toward the university rather than the school district. Novice teachers observed that communication was a weak point in the collaboration, which explained many of the difficulties in developing the partnership. They considered the inquiry sessions and community forums as the major means of communication. While they believed that the partnership leaders and the university professors who were involved in the collaborative activities were committed and genuine people, they argued that there should be more timely reactions to student feedback and input. They suggested that a newsletter, a regular bulletin, and e-mail would be the best measures to improve communication in and beyond the partnership. Again, they proposed that to have one liaison person whose sole responsibility was to facilitate the collaboration would solve many of the communication problems that the collaboration had. This would be in addition to the team leaders, who had to teach a class or two. This person's entire work should be teacher education program and its partnership with school district.

Success, Benefits, and Rewards

Despite their many different views of the various aspects of collaborative relationships and activities, both the school and university people believed that the partnership had achieved some remarkable success. University administrators felt that they were successful in developing a model of a "new kind of partnership that can be helpful to us, helpful to them and serve as a model to other institutions." They believed that the partnership had given them "enormous political credibility, that we are solidly connected with a school district." Now they can use the schools as places to try out new things, to do the best research on real, practical problems, and to learn much more about what school people do on a day-to-day basis and how they negotiate all the politics of urban schools.

Some education faculty in the major research universities such as this one have had little experience working in K–12 schools. Many have come up through graduate schools and academic ranks spending most of their time in the library or the laboratory. University administrators interviewed for this inquiry believed that through various partnership and school-related activities, "the majority of our faculty have their face out and their face in and that has changed fundamentally the orientation of their teaching, research and program development." They also felt that the schools had learned from the university in a substantial way and had gained legitimacy for their genuine efforts to change because "being associated with this university has given them some covering fire to be able to challenge some community assumptions and professional prejudices in ways that they would not have been able to if they did not have the imprimatur of the university."

Team leaders and clinical faculty were also highly positive about the success of the partnership. They observed that the collaboration had brought the school of education closer to the school district than it ever was before, and it had also brought the community closer to what was happening in the schools and to what the university was doing. What they found to be most promising were some of the inquiry meetings on the school sites, the involvement of classroom teachers in research and teacher education, and the placements of novice teachers at innovative schools. One clinical faculty considered the collaboration to be a "huge success" because "everyone is talking together about what is good for novice teachers, the novice teachers feel very connected to the school they are at, it is not just the school but the culture, the school and the parents, and the kids."

The university faculty received some summer salaries, support in research/teaching assistance, and release from teaching load for their participation in the partnership, but they felt that those compensations did not equal the amount of effort—the work was considerably beyond the compensations. They claimed that they did not participate in the partnership work for compensations. The university reward/promotion system did not place high values on service activities in schools. Education faculty had proposed some ideas for the campus-wide committee on personnel about reframing the criteria for faculty promotion to better accommodate inquiry that also could be viewed as public service. But those efforts had been soundly rejected by the campus committee. A strategy that the education faculty had been using was to talk about those ideas that went on in a professional school, to show that those activities did meet the traditional standards. The campus review committee was open to that on a case-by-case basis, though no fundamental changes had taken place in the university reward structure. This has made it particularly difficult for untenured faculty who participate in the labor-intensive and time-consuming partnership activities, as has been found in other research studies on school-university partnership (Valli et al., 1997).

School district administrators and school teachers/administrators identified the success of the partnership as occurring in several areas. First, it kept teachers more in touch with the research world. Teachers were exposed to the teaching and research programs offered by the university and were invited to participate in collaborative work with university people. Second, it placed excellent novice teachers in the schools from the very beginning of their training program. There were many positive comments about their ideas and their work in the classroom, as one schoolteacher observed, "It is good for the mentor teachers to pick up new tricks of the trade from the novice teacher." Novice teachers were made more aware of social issues than ever before and, therefore, were much more philosophical and questioning. They did not take everything for granted, and this in turn affected schoolteachers' thinking and practices. Almost all teachers interviewed noted that they had become more reflective of their roles as teacher educators, more aware of diversity issues, and more analytical of their own teaching and the context of teaching as a result of their interaction with novice teachers. Third, it forced the district to see teachers as needing to be more involved in intellectual activities, and it created better opportunities for teachers to grow. Fourth, the partnership and especially the changes made by the university teacher education program provided better preparation for novice teachers and better opportunities for professional development for school teachers. Finally, it had created an important dialogue between the school and university people and brought together both human and financial resources for reform in schools and teacher education.

Identified as most successful, informative, and powerful were the social justice meetings where university faculty (though very few), schoolteachers, novice teachers, and community members were engaged in inquiry activities. One school teacher observed that "slowly but surely this district is progressing in terms of breaking away from lecture style teaching to more innovative ways of teaching. It is starting with inquiry and slowly trickling down." In addition, the inquiry groups gave novice teachers a chance to express some concerns and stirred the belief that something could be done. It was also very powerful for novice teachers to hear parents of color share their beliefs. In general, school people felt that the partnership had strengthened and reaffirmed the restructuring process in schools and helped establish a norm of reflective thinking and practice. Furthermore, they believed that "the university is going to be AROUND, it is just how much we trust them. Every year people renew their faith and see what happens." Clearly, despite its many shortcomings, the partnership has breathed new life into the schools.

There was a small stipend for teachers who participated in inquiry activities and a little monetary compensation for mentor teachers, who supervised novice teachers' observation and student teaching experiences in schools. However, many teachers were completely unaware of stipends, and it was also noted that this money was not consistently distributed. To teachers, the rewards of participating in the school-university partnership activities were mainly intellectual growth, professional development, and the "internal gratification" of mentoring new teachers. Attending inquiry meetings and having novice teachers in their classrooms were considered rewarding experience by most of the schoolteachers interviewed. They tried to make their classrooms more socially just places, and they obtained many new ideas and techniques from the novice teachers. Furthermore, they noted that children in their classrooms really benefitted from their deeper thought and improved teaching practices. Since the guiding teachers were involved in the collaborative activities largely for intrinsic rewards, they expressed the wish to be publicly acknowledged for their efforts by the university and the school district.

Most of the novice teachers also observed positive changes in schools and the university as a result of the collaboration. The following comments illustrate their feelings well:

> I have had outstanding teacher training thanks to the exceptional teacher examples.... I also think the school district and the university keep pushing each other to improve and make change happen, and there's a lot of change that does happen because it's a supportive environment conducive to risk taking.
>
> The results of our novice teachers being both socially and academically aware in terms of the university providing the theory of academics and school district giving us a reality. The collaboration gave us the freedom to delve more into an understanding of our community and ourselves and this has made us, the novice teachers, stronger. Also the most recent mentor teacher I worked with said that she gained insight into different techniques and theories because of what I brought to the class. The collaboration contributed towards teachers' growth.

Thus, the partnership has enabled the novice teachers to see and experience the intersection between theory and practice as well as changes in schools and in teacher education. Meanwhile, the novice teachers noted that the partnership was still quite "incomplete" and "wrought with problems." A major concern was the lack of parent representation at the social justice meetings—"pretty much the same parents showed up at each meeting." They wondered whether the information was accessible to all parents and how the school families were notified of such events. They would like to see the social justice meetings more inclusive of the community.

Novice teachers felt that their training, especially their experiences in the school district, was their greatest rewards:

> I have better teaching and people skills, networking possibilities. I really got to see teaching as a profession, rather than as a job.
>
> I've been surrounded by school people who sincerely care about my development and about me personally. They have kept me from feeling totally abandoned and alone. I am ecstatic to have been hired at a school here for next year, and that is a direct result of my experiences and connections from this year.

Their comments affirmed the importance of practice and the value of Professional Development Schools for teacher education. Novice teachers going through traditional teacher training programs—taking all foundation and methods courses on the university campus first before they conduct a short period of student teaching in a regular public school—would not be able to learn so much and develop so many perspectives and skills in their first year of training. The novice teachers under the study were aware that because of the excellent experiences they had in the partner schools, they were very desirable as new teachers—many school districts would want teachers with their qualities and preparation.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions that follow are based on the above summary and discussion of the data from the interviews that we conducted with representative participants of the partnership between the university and the school district—university administrators, ladder and clinical faculty, team leaders, novice teachers, school district administrators, school teachers, and school administrators. The recommendations are based on these data and applied to the partnership utilizing the author's current knowledge of the organization and its operation.

Conclusion 1: Aims and Goals

The aims and goals of the partnership, while clearly established on paper at the time of its inception, are not known and shared by all participants, including members of the Steering Committee. The confusion and dissatisfaction about goals have resulted primarily from a lack of discussion, communication, and representative participation in decision making.

Recommendation A. The aims and goals of the partnership should be more visible, shared by all the participants, and should be a significant criteria for establishing, developing, and evaluating collaborative projects.

Recommendation B. A task force consisting of representatives from different groups of participants in the partnership should be formed to review, revise, and offer concrete explanations of the partnership aims and goals. Such activity should take place annually on a planned basis.

Conclusion 2: Social Justice Education

Social justice education carries multiple, but not shared, definitions in this partnership. Equality, diversity, inquiry, community, and change have been recognized as the major themes in the participants' visions for social justice education. Although novice teachers were exposed to the ideas of social justice educators in foundation courses, their school experiences focused more on lesson planning than on social justice issues.

Recommendation C. There should be clear and shared understanding about social justice education among all participants. Moreover, schoolteachers and novice teachers should have the opportunity to observe and experience social justice education in practice in teacher training and in the partner schools.

Conclusion 3: Inquiry as a Means of Reform and Professional Development

Inquiry has been initiated in all partner schools and has affected many schoolteachers and novice teachers. University faculty, however, have not actively participated in these inquiry activities, except for the few who are directly involved in the partnership. While some consider inquiry as the best chance for school reform and teacher development, others view it as just another "buzz word" and a "growing pain."

Recommendation D. Continue inquiry in all aspects of the partnership should help keep the focus on challenging the existing beliefs and practices in schooling and teacher education. An open and productive inquiry process requires the development of a genuine feeling of trust and cooperation between university, school, and community people and between novice teachers and schoolteachers.

Conclusion 4: Leadership and Organization

The partnership has both benefitted and suffered from the lack of a formal structure of leadership and organization. On the one hand, participants have enjoyed a process of thinking, dialoguing, and experimenting on different ideas and possibilities of collaboration without the restrictions of formally established rules and boundaries. A few key persons were able to initiate and facilitate some essential inquiry activities in the schools. On the other hand, participants have experienced uncertainty, ambiguity, and frustration about the lack of leadership, direction, communication and organization of the partnership and its activities. The Steering Committee served well as a meeting place for representatives from different groups but did not perform effectively as a decision-making body and a communication mechanism for the partnership.

Recommendation E. At this stage of development in the partnership, there should be a full-time secretariat with executive director/s and staff, whose sole responsibility is to create, develop, coordinate, and nurture partnership activities. Moreover, this structure should be institutionalized in the schools, and the university and should have long-term goals, plans, personnel support and resources.

Recommendation F. A few key persons, either as insiders or as outsiders, should continue to play key roles in facilitating the development of essential partnership activities. However, they should commit to the partnership on a long-term basis so as to assure the consistency and continuity of the program, and generate confidence and trust from all participants. In addition, more school personnel and novice teachers should be involved in the decision-making process so as to develop a sense of ownership of the partnership goals and activities.

Conclusion 5: Commitment

The university and school district administrators believed that they have made tremendous commitment to the partnership in terms of their time, faculty support, and resource allocation. However, most school teachers/administrators expressed strong dissatisfaction about the lack of university commitment to and involvement in the partnership.

Recommendation G. The university should make a stronger commitment to the partnership, supported by its top leadership with resource and faculty time. Fundamental changes need to be made in the reward/promotion system of the university to encourage faculty, especially high-status, senior faculty, to participate in partnership activities in schools.

Conclusion 6: Communication

The current means of communication in and beyond the partnership are largely informal, insufficient and ineffective. Many differences in views between the university and school people have resulted from poor communication and lack of contact. Schoolteachers, in particular, feel disconnected from university faculty and misinformed about essential partnership matters. Clinical faculty from the university also appear to be the loose link in the partnership. Most participants have recognized communication as "crucial" to success.

Recommendation H. The partnership should develop more effective and formal means of communication such as newsletters and bulletin boards and use more electronic devices and more personal contacts. There should be more sharing of information, more publicity in the news media, and increased time for the school/university liaison persons. Moreover, the partnership should create a flow chart that shows the different levels of interaction so as to present a clear view of where the different groups of participants—university administrators, ladder and clinical faculty, doctoral students/team leaders, school district administrators, school teachers *and* administrators, and novice teachers—fit in the puzzle.

Conclusion 7: Successes, Benefits, and Rewards

The partnership has achieved remarkable success even though there has not been sufficient recognition and rewards for individual participants. First, the partnership has brought the university, the schools and the community closer to each other than ever before, created an important dialogue among them, and gathered together both human and financial resources for reform in schools and in teacher education. Next, the collaboration has provided university faculty with opportunities to do research on real and practical problems and has enabled novice teachers to see and experience the intersection between theory and practice as well as changes in schools and in teacher education. Finally, the biggest change is that the school teachers and administrators are now, through inquiry, social justice meetings, and community involvement, consciously and deliberately questioning and challenging their existing practices and exploring changes to create a more socially just education for all children. As a result, they have become more reflective of their own practices, more aware of diversity issues, and more analytical of schooling and the larger context for education.

Recommendation I. The partnership should be proud of its successes in its early stages of development. Lessons on the strengths of the partnership should be publicized and shared with other school-university partnerships in the local area and across the country. The efforts made by different individuals in developing collaborative activities should be publicly recognized and adequately rewarded.

Conclusion 8: Areas for Growth

There are many areas for growth in this partnership. First, the university and the schools need to work more closely together to develop shared goals and action plans rather than having separate agendas. Second, there should be strong leadership and key persons from both schools and the university whose sole and consistent responsibilities are to create, develop, and maintain partnership activities. Meanwhile, more high-status, senior faculty from the university should be engaged in collaborative activities, and the clinical faculty's status should be improved in the university recognition/promotion system. Third, a clearly outlined reward structure should be established to encourage both university and school people to participate in reform and teacher development activities, especially in the late afternoon hours and evenings. Fourth, communication needs to be improved in all aspects of the collaboration so as to establish shared vision and goals, continuity, and program unity. Fifth, there is an urgent need to restructure the teacher education courses offered by the university so as to make theory relevant to practice. Finally, the partnership can be used as a conduit to restructure the education administrator-training program in the same way that it has addressed teacher education reform.

Conclusion 9: A Vision for the Future

Despite its shortcomings and pitfalls, this school-university partnership has come a long way toward creating a genuine collaborative relationship characterized by mutual trust and respect, much good will and hard work, and social justice education. There are great hopes and expectations for the future of the partnership. Both the school and the university people want the partnership to move beyond its present structural relationship into the more substantive reform issues on curriculum, on the culture of the school and the university, and on creating a "third space" where the school and university people can work together in a true and equal partnership. A center of pedagogy very much like the one proposed by Goodland (1994) has been envisioned out of which schools will become exemplary sites for school reform and teacher education and where school and university people will initiate and implement fundamental changes both in their own settings and in the larger social context.

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CHAPTER 19

THE FACILITATORS OF AND BARRIERS TO THE COLLABORATION PROCESS IN PROFESSIONAL DEVELOPMENT SCHOOLS

Results of a Meta-ethnography

Elisabeth K. Hess Rice and Heather Afman

INTRODUCTION

Across the nation, universities and school systems are responding to the calls to reform teacher education by adopting the Professional Development School (PDS) model. PDSs, partnerships between institutions of higher education and schools, are the most recent response to training effective teachers and transforming teacher education throughout the country (Darling-Hammond, 1994; Goodlad, 1994, 1990; Holmes Group, 1995, 1990; Slick, 1995). The PDS idea was strongly influenced by the teaching hospital movement in that it was designed to prepare doctors to be "thinking practitioners" just as PDSs are designed to help prepare thinking teaching practitioners (Levine, 1997). The aims of PDSs are to provide exemplary education for pre-service teachers, support continuing professional development of experienced teachers, and involve schools and universities in collaborative research (Bullough, Hobbs, Kauchak, Crow, & Stokes, 1997).

Universities and schools are responding to the calls to reform teacher education as evidenced by the growing number of PDSs. It is estimated that there are more than 1,000 PDSs in 47 states (Abdal-Haqq, 1998). Most of these PDSs have come into existence since 1991 and are found in urban, suburban, and rural settings in this country and in several foreign countries (Abdal-Haqq, 1995). PDSs are fast becoming a significant trend in teacher education reform; a trend that necessitates further study (Book, 1996; Metcalf-Turner, 1996).

PDSs are complex and multi-layered entities that are labor intensive for both school and university faculty. In order to begin to clarify the contribution of PDSs to teacher education and to understand the development of PDSs, this study examined one part of the PDS—the collaboration process between schools and universities. The collaboration process is one of the most important elements in the formation and maintenance of a PDS. It is the cornerstone of the development of the spirit of PDS work and often emerges as a key theme and challenge that must be addressed. Of all the components of the PDS, it is "...the quality of the collaboration [that] determines our ability to accept the conflicts, failures, lapses in commitment, and most important, the erratic nature of progress toward the ultimate restructuring goal" (Dixon & Ishler, 1992, p. 32). Unfortunately, many attempts to begin and maintain PDSs have failed before the details of the collaboration process could be analyzed and evaluated (Clark, 1988).

Collaboration is critical to the work in PDSs (Darling-Hammond, 1994; Kochan, 1996, 1998, 1999). The identification of the facilitators of and the barriers to this collaboration process are not clearly analyzed using cross-case comparisons in the literature. Many of the studies on PDSs focus on start-up stories, role changes, teacher attitudes, and site-specific descriptions (Book, 1996; Teitel, 1993). These case studies and site-specific descriptions explain the particulars of the collaboration process between a university and a certain school but do not examine or analyze the collaborative process outside of their singular efforts (Kochan, 1996, 1998, 1999; Murray, 1996).

The research describing collaboration in PDSs primarily consists of individual case studies describing the process for one university and school site (Kochan, 1999; Watson & Fullan, 1992). This study collected case studies of the collaboration process in PDSs between the years 1990 and 1998 and synthesized the results using meta-ethnography in order to provide a research-based interpretation of the collaboration process. The methodology used in this study attempted to translate the depth and richness of each case while also outlining some overarching concepts about PDS work.

METHODOLOGY

This study used meta-ethnography as explained by Noblit and Hare (1988) to answer the question: What are the facilitators of and the barriers to the collaboration process in PDSs? Meta-ethnography is a structured way to synthesize qualitative research. Analysis that interprets multiple cases is an important research process because it creates a way of translating qualitative studies into each other and deepens understanding and explanation of a studied phenomenon (Firestone & Herriott, 1983; Glaser & Strauss, 1967, 1970; Miles & Huberman, 1994; Ragin, 1987; Silverstein, 1988). Meta-ethnography attempts to preserve the uniqueness of qualitative inquiry and comparison. This methodology does not just aggregate or average results across cases as this could lead to misinterpretation and superficial analysis. Instead, meta-ethnography attempts to preserve the uniqueness and holism of qualitative studies while translating studies into one another and interpreting the results (Noblit & Hare, 1988). Meta-ethnography is a way to examine a particular phenomenon in multiple qualitative studies through systematic and interpretative analysis.

Meta-ethnography is a methodology used to examine multiple qualitative studies. This methodology differs from meta-analysis and from a literature review. The term meta-analysis sounds similar to meta-ethnography but, in reality, the two methodologies are extremely different. Meta-analysis is a technique used to synthesize quantitative studies through an examination and scrutiny of each study. Meta-analysis relies on statistical methods to identify patterns and generalizable outcomes of a set of studies (Schumacher & McMillan, 1993; Tuckman, 1988). The only similarity between meta-analysis and meta-ethnography is that both methodologies examine multiple studies. There are many discrepancies between the two methodologies. Meta-ethnography is the synthesis of qualitative studies and meta-analysis is the synthesis of quantitative studies. Meta-analysis relies on statistical methods to analyze studies while meta-ethnography relies on the researcher's interpretations and judgments to collect themes in the data. Furthermore, meta-analysis relies on the positivist paradigm of observable truth while meta-ethnography relies on the interpretivist paradigm or a view that reality is subjective (Noblit & Hare, 1988).

The sample for this study was selected from the published literature and unpublished dissertations between 1990 and 1998 that discussed the collaboration process in PDSs. The years 1990–1998 were chosen because the national movements of the Holmes Group (1990) and Goodlad (1990) created the mission and goals of PDSs in their publications of 1990. The case studies selected for this study were chosen after two screens for adequate content and methodology were conducted. The following sections describe: (a) collecting the initial sample, (b) Merriam's (1988, 1998) content screen, and (c) Rist's (1999) methodological screen.

Collecting the Initial Sample

Using the keywords *Professional Development Schools', "collaboration," "school-university partnerships,"* and *"partnerships"* a search of the ERIC database and dissertation abstracts database was conducted. The search revealed 66 case studies of collaboration in PDSs. Each of the 66 case studies found in journal articles, books, and dissertations was recorded on a sample selection grid. The grid was then sent to three expert panelists. The expert panelists were recognized as having extensive knowledge about the literature on collaboration in PDSs. These experts on collaboration in PDSs were asked whether or not the selected sample contained any selection errors or omissions. The expert panel endorsed the selected case studies and then suggested the inclusion of two additional case studies.

Merriam's Content Screen

The collected case studies were then compared to Merriam's (1988, 1998) criteria of a case study. These criteria require case studies to be: (a) particularistic, (b) descriptive, and (c) heuristic. Merriam outlined the essential properties of qualitative case studies that were used to select the sample for this study. First, case studies should be particularistic and focus on a certain situation, program, or phenomenon. Second, case studies should be descriptive with "rich, thick description of the phenomenon under study" (Merriam, 1988, p. 11). Third, case studies should "...bring about the discovery of new meaning, extend the reader's experience, or confirm what is known" (Merriam, 1988, p. 13). Case studies should be inductive so that generalizations, concepts, or hypotheses emerge from an examination of the data. Using this criteria as a guide, case studies of PDS collaboration were selected for this study that: (a) were particular to the collaboration process, (b) provided ample description of the collaboration process in a PDS, (c) discussed interpretively the collaboration process, and (d) were capable of contributing details to understanding the process of collaboration in PDSs.

Because Merriam's (1988, 1998) first requirement states that case studies should be particularistic and focus on a certain situation or phenomenon, only case studies that focused on the collaboration process in PDSs were considered for the sample for this study. Studies that discussed the partnership and the process of working together as the central issue met the defined criteria. Studies that did not meet the qualification of being particularistic were studies that focused on: (a) the outcomes of the partnership, (b) the feelings or skills of the student teachers, or (c) other PDS issues not related to this study.

The second requirement in Merriam's (1988, 1998) criteria was for case studies to be descriptive. In this study, each case study was tested to determine if it provided an ample description of the collaborative process in a PDS. In order to be considered descriptive, each case study was required to provide more than a few paragraphs about the collaboration process.

Merriam's (1988, 1998) third requirement was for case studies to discuss the studied phenomenon in a way that is heuristic. In this study, each case study was tested to evaluate whether or not it discussed interpretively the collaboration process in PDSs. In order for the case studies to meet this requirement, metaphors, explanations, questions, or possible conclusions had to be present in its text. Of the 66 identified case studies about the collaboration process in PDSs, there were 55 case studies that met Merriam's (1988, 1998) criteria. After the first screen, these 55 case studies were evaluated by a methodological screen. The methodological screen is explained in the next section.

Rist's (1999) Methodological Screen

Following the first selection process of case studies according to Merriam (1988, 1998), the selected group was then examined and evaluated using a methodological criteria devised by Rist (1999). The methodological criteria was comprised of the following questions from Rist's work: (a) "Are there explicit research questions in the case study?" (b) "Are the data collection procedures clearly outlined in the study?" and (c) "Is there an adequate presentation of the findings of the study?" Each selected case study was tested against the criteria. Only nine studies qualified using all of the criteria. Thirteen additional studies qualified for all but one of the criteria; that of explicit research questions. The additional 13 studies were included in the final sample because they clearly described their data collection procedures and presented adequate findings. The decision to modify the methodological screen was based upon the examination of the cases and the determination by the researcher that (a) methodological rigor was used even though the research questions were not explicit and (b) a larger number of cases enhanced the quality of this analysis. This rationale was supported by Dr. Ray Rist, the developer of the methodological screen, as having a larger sample was determined to provide a richer meta-ethnography and picture of the collaboration process in PDSs. There were 22 case studies that met two of the criterion of the methodological screen as well as all of the content screen. In order to determine if these case studies were accurately assessed, an individual not connected to the study examined the sampling procedures as explained in the next section.

RESEARCH DESIGN

In 1988, Noblit and Hare created meta-ethnography—the synthesis of interpretive research. In creating meta-ethnography, the authors developed a series of phases that overlap and repeat as the synthesis of cases proceeds. The phases for conducting a meta-ethnography are: (a) getting started, (b) deciding what is relevant to the researcher, (c) reading the studies, (d) determining how the studies are related, (e) translating the studies into one another, (f) synthesizing the translations, and (g) expressing the synthesis. In applying these phases to this study, the researcher identified themes relating to the collaboration process in PDSs. In the analysis, the results will be interpreted through utilizing knowledge of the literature on PDSs.

The first two phases of meta-ethnography involve defining a research interest. Noblit and Hare (1988) state that the first phase "…is finding something that is worthy of the synthesis effort and of interest to the author" (p. 26). In this study, as described above, the area of interest is the characteristics of the collaboration process between schools and universities in PDSs throughout the United States.

The second phase of meta-ethnography consists of deciding what is relevant to the research interest. This phase defines the sample. Noblit and Hare (1988) believe that "…unless there is some substantive reason for an exhaustive search, generalizing from all studies of a particular setting yields trite conclusions" (p. 27). In this study, an exhaustive search of case studies was conducted due to the relatively short time that PDSs have been formed under the Holmes Group (1990) and National Network for Educational Renewal (1990) reform movements. In order to investigate the collaboration process in the plethora of published case studies, each case was tested against a sampling criteria outlined by Merriam (1988, 1998) and Rist (1999).

Phase three, four and five in meta-ethnography set guidelines for analyzing each case study and for grouping the case studies. The third phase of a meta-ethnography "…is the repeated reading of the accounts and the noting of interpretive metaphors" (Noblit & Hare, 1988, p. 28). In this study, themes from each selected case study were collected based upon the researcher's interpretations of the data. Themes that discussed the *charac-*

teristics of collaboration and *the facilitators of* and *the barriers to* the collaboration process were identified through the selection of relevant quotations and synthesized information in the research. The detail and uniqueness of each case study was preserved through the use of quotations and the author's use of metaphors to express the meaning of the research (Noblit & Hare, 1988, p. 79). Once themes for each case study were identified, phase four began. In phase four, "…the relationships between the studies to be synthesized are to be determined. A list of key metaphors, phrases, ideas, and or concepts used in each account are created and juxtaposed" (Noblit & Hare, 1988, p. 28). Comparison of the themes of each case study began and new themes were identified. The similarities, differences, and unusual information in the case studies were also collected.

In phase five, themes of each case study were synthesized through combining identified similarities, differences and unusual information in the case studies. After analyzing the case studies for similarities and differences, the case studies were reanalyzed to see if the themes could be grouped in an alternative format. This repeated comparison continued until all ways of comparison were exhausted. In addition, themes that examined the facilitators of and the barriers to the collaboration process were analyzed and synthesized. Noblit and Hare (1988) defined phase five as a phase where the studies are translated into each other.

Phase five, according to Noblit and Hare (1988):

> …treats the accounts as analogies. Translations are especially unique syntheses, because they protect the particular, respect holism, and enable comparison. An adequate translation maintains the central metaphors and or concepts of each account in their relation to other key metaphors or concepts in that account. (p. 28)

In the final two phases of meta-ethnography, (phase six and seven), the commonalities of the case studies were analyzed and the results of the analysis were presented. In phase six of a meta-ethnography, synthesis refers to making a whole into something more than the parts alone imply. A synthesis was completed that analyzed the grouping and interpretation of the identified themes. Results were examined within the context of the organizational literature on inter-organizational relationships. Identified facilitators of and the barriers to the collaboration process were also interpreted. In phase seven the results of the analysis are presented. In this study, the results of the meta-ethnography will be written and presented in figures and tables as appropriate for the reader. Table 1 below summarizes the process of this meta-ethnography and the steps that were followed in this study.

Table 1. The Process of Completing a Meta-Ethnography

Phase	*Title*	*Steps for this Study*
Phase 1	Getting Started	The area of interest is the PDS movement and the collaboration process in PDSs.
Phase 2	Deciding what is relevant to the researcher	Case studies that describe the collaboration process in PDSs are of interest. These case studies must be particularistic to collaboration, be descriptive, capable of interpretation, and provide details. In addition, the case studies must have explicit research questions, describe data collection procedures, and provide adequate findings.
Phase 3	Reading the studies	While reading the case studies, themes were collected based upon the researcher's interpretations of the data.
Phase 4	Determining how the studies are related	Themes were identified and compared while reading each case study.
Phase 5	Translating the studies into each other	Similarities, differences and unusual information in the case studies were combined across case studies.
Phase 6	Synthesizing the translations	The commonalities of the themes were analyzed and synthesized. These themes were examined within the context of literature on inter-organizational relationships and the facilitators of and the barriers to the collaboration process were identified.
Phase 7	Expressing the synthesis	The results of the analysis were written.

In summary, the following procedures occurred: (a) a sample of case studies describing the collaboration process in PDSs was selected, (b) the case studies were read, (c) themes were identified, (d) the data was synthesized, and (e) the results of the meta-ethnography were written in order to answer the research questions of this study.

DESCRIPTION OF THE SAMPLE

Once the sample was selected, each case study was analyzed in terms of the following demographic information: (a) geographic region, (b) type of partnership, (c) urban or suburban setting, (d) the number of years in the partnership, (e) elementary, middle or secondary school, and (f) the authors of the study.

Geographic Region

The geographic regions in the sample were identified as Northeast, Southeast, Midwest, West Coast, and West. The Northeastern states represented were: Maine and New York. The Southeastern states represented were: Florida and South Carolina. The Midwestern states represented were: Ohio, Indiana, Wisconsin, and Missouri. The West Coast states represented were: Washington and California. The states representing the West were: Texas, Oklahoma, Utah, and two unspecified western states. Of the 20 case studies chosen for this study, three PDSs were from the Northeast, three were from the Southeast, six were from the Midwest, two were from the West Coast, and six were from the West.

Public or Private Institutions

In the second category, the PDSs were categorized by their types of partnership; that is whether or not the partners were in public or private institutions. In the identified sample, fifteen PDSs were public university and public school partnerships, four were private university and public school partnerships, and one was a private university and private school partnership. It is notable that only one school was a private school.

Setting

The third demographic category was the identification of the PDSs setting. This category described the type of place the university and the school were located. The setting is described in terms of urban, suburban, or rural areas. In the sample there were fifteen urban universities: three suburban universities, one rural university, and one unidentified university. There were also twenty-five urban schools, eight suburban schools, and two rural schools discussed within all the case studies. The case studies often identified more than one school in partnership with the university. There was no differentiation made between the sizes of each urban area. The authors of each case study identified the setting of their university and school or schools.

Number of Years as a PDS

The number of years the partnerships were in existence was also recorded. The mean number of years of the existence of the PDSs in this sample was 3.8 years. There was one PDS in existence for one year, two for two years, six PDSs in existence for three years, four for four years, two for five years, three for six years, one for eight years, and one unknown.

Grade Level of PDS

The next demographic category recorded was the grade level of the PDS. There were twenty elementary schools, K–6, eight middle schools, 6–9th grade, and ten secondary schools in the sample. One PDS was K–12.

Author of Case Study

The final category in the description of the sample was the identification of the author of the case study. Ten of the case studies were written exclusively by university faculty, six by graduate students, and four by school personnel and university faculty members. It is notable that the majority of the case studies were written by university faculty members.

FINDINGS

A research question in this study was: What are the facilitators to the collaboration process in PDSs? The following sections analyze the identified facilitators and provide examples from the case studies. These facilitators were clearly identified in the case studies and support the conceptual literature identifying the facilitators of the collaboration process in PDSs. The facilitators to the collaboration process identified in this study are: (a) obtaining resources from outside organizations, (b) administrative support, (c) taking time to establish a shared vision and, (d) the feeling that a PDS increases professional development. The following paragraphs discuss each of these identified facilitators.

Obtaining Resources From Outside Organizations

One facilitator identified in this study was obtaining resources from outside organizations. In order to support the collaboration process, PDSs obtained funding from a variety of sources outside their school or university program. Funding for PDSs within these cases was obtained by: (a) writing grants or (b) forging partnerships with local businesses or organizations. The attainment of funding allowed partners to establish and maintain a PDS.

Some university and school faculty members wrote grants to obtain the necessary funding for a PDS. One member of a western, public, urban PDS stated that, "Funds for the project were administrated by the university with the professor of education named as principal investigator of the grant" (Lemlech, Hertzog-Foliart, & Hackl, 1994, p. 159). Another member of a western, public, suburban PDS identified their source of funding:

> The PSPDC has also benefited from grants from the Ford Foundation, the Carnegie Foundation, Metropolitan Life, the Stuart Foundation, and the Washington State Office of the Superintendent of Public Instruction. While each of these grants had a different agenda for reform, they all supported ongoing professional development of PSPDC teachers. (Grossman, 1994, p. 62)

Another PDS wrote a grant to a teachers' union. The author of a case study of a mid-western, public, urban PDS stated:

> In its sixth year, the PDS was initially funded in 1990 by a three-year grant presented to the American Federation of Teachers to establish one of three national professional practice schools. (McKendall, 1998, p. 88)

Federal grants were also used to fund partnerships. A northeastern, public, suburban PDS member recalled:

> Major and a university colleague wrote and submitted a federal grant proposal designed to enhance the project, a proposal subsequently funded for 2 years beginning in October 1990. (Miller & Silvernail, 1994, p. 37)

One PDS acquired outside funding from another organization. In this Midwestern, public, rural PDS the author noted that, "Venture Capital is an outside stimulus that complemented some project goals. We could not have managed workshops without these resources" (Conrath, 1997, p. 87). Similarly a western, public, urban PDS forged a partnership with a local non-profit corporation. This corporation consisted of members from industry, universities, research organizations, and government agencies and provided needed resources to the PDS (Kutcher-Lopez, 1995). The Superintendent of Schools in a district in the northeast recommended the identification of private funding and other sources of financial support for PDSs. He stated:

> There are opportunities for private funding. We have had the experience on previous occasions that there are organizations, there are corporations who will in fact provide funding for projects of this nature. (Perkins, 1991, p. 120)

Through acquiring funding from a variety of outside sources, PDSs were able to begin the collaboration process. Without obtaining adequate resources the PDS could not function as a teacher reform effort. A challenge that frequently follows PDSs from year to year is how to sustain funding once funding has been identified. Each year PDSs often do not know their fate for the next year due to funding concerns. This lack of certainty can produce additional strain on the teachers, administrators, and university faculty members involved in the PDS (Rice, 2002).

Administrative Support

Another facilitator of the collaboration process in PDSs was the existence of administrative support for the PDS. Supportive deans and school district central offices were described as facilitators of the collaboration process. These supportive administrative structures refer only to those who were involved in the daily work of PDSs as principals and university supervisors. Supportive deans advocated for the PDS model and participated in the planning and implementation of new PDSs outside the walls of the PDS school building. The central school administration facilitated the collaboration process in PDSs by devoting resources to the partnerships. These supportive administrators aided the PDS process through recognizing the work in PDSs, participating in the PDS, and through finding funds or other resources for the PDSs to use.

A dean of a college of education in a Midwestern, public university facilitated the PDS concept by noting in a faculty meeting, "that supporting the partnership as a college is a high priority. This was a turning point with some faculty" (Conrath, 1997, p. 81). Another supportive dean was involved in the formation of the PDS and motivated faculty to become involved in the PDS. This dean of this western public university helped negotiate:

> ...concessions such as extra pay for university faculty willing to make a commitment to the PDS. He allocated stipends for university personnel willing to work in the PDS. This stipend was in recognition of the additional demands placed on faculty working in the PDS, including a difficult, time-consuming commute. (Kutcher-Lopez, 1995, p. 38)

A dean in the Midwest supported the PDS by setting up "monthly breakfast meetings. They met throughout the year to talk about education issues and worked to better understand each other" (McKendall , 1998, p. 92). Supportive university deans facilitated the process of collaboration through showing their support for the PDS through their presence, expectations, and attempts to reward PDS participation.

The school administration was also a facilitator of the collaboration process in PDSs. Supportive superintendents and central offices participated in the PDS effort and devoted resources to the partnerships. Members of a Midwestern, public, rural PDS felt that "the superintendent and board have been supportive of the PDS partnership initiatives even as they continue to support the district's more traditional field experience arrangements" (Conrath, 1997, p. 110). Another PDS had similar feeling, a member of a northeastern, public, urban PDS said, "Central office directors and curriculum coordinators have been instrumental in facilitating the collaboration between the university and the school district" (Perkins, 1991, p. 73)

Administrative support was a facilitator of the collaboration process in PDSs. Deans of colleges of education were supportive through pushing faculty members to be involved in PDSs and through directly participating in the school-university partnerships. Superintendents and central offices supported PDSs through participation and fiscal support.

Taking Time to Establish a Shared Vision

Another facilitator of the collaboration process in PDSs was investing in the time to establish a shared vision for the partnership. Twelve of the cases in this study reported having various meetings where committees and partners created a shared vision of the purpose and goals of the PDS (Breck, 1988; Clift, Veal, Holland, Johnson, & McCarthy, 1995; Feezell, 1996; Grossman, 1994; Kirschner, Dickinson, & Blosser, 1996; Kutcher-Lopez, 1995; McKendall, 1998; Perkins, 1991; Rose, 1994; Slater, 1996; Snyder, 1994; Snyder & Goldman, 1997). Many of these meetings resulted in the creation of mission statements that provided focused goals for the PDSs. The following examples illustrate the importance of taking the time to establish a shared vision in PDSs. One member of a western, pubic, urban PDS identified the result of taking the time to create shared goals:

> Together the university and school-based participants began to discover that common goals existed. As trust began to build, openness increased. Conversation focused on issues related to the study of teaching. The development of collegiality had begun. (Lemlech et al., 1994, p. 160)

Another partnership had a similar experience. A participant of a southeastern, public, suburban PDS observed:

> This was, and is, very time consuming but … the only way to insure everyone completely supported the PDS initiative was to take the time to reach consen-

> sus. Some issues were discussed over a period of several meetings but in the end everyone agreed on the outcomes. (Breck, 1988, p. 71)

Taking the time to establish shared goals also benefitted a southeastern, public, rural PDS. A university PDS member stated:

> When we shared our observations of actions that confirmed and disconfirmed these theories, we found it easier to talk with the teachers and administrators than we did the first time through the profile. Likewise, we were pleased when the teachers and principal expressed that they felt ownership of the project. (Clift et al., 1995, p. 59)

Taking the time to establish shared goals was identified in this study as a facilitator of the collaboration process in PDSs. The initial planning sessions focused the participants on the PDS and helped them establish clear governance structures.

The Feeling That a PDS Increases Professional Development

A fourth facilitator of the collaboration process in PDSs is the feeling that a PDS increases the professional development of educators. Through experiencing professional growth, teachers and teacher educators were more satisfied with the PDS program and more willing to continue their work in the PDS. Some teachers in the PDS felt satisfied having interns while others grew in professional development seminars sponsored by the project. One teacher in a Midwestern, public, rural PDS commented:

> Having a university student makes me more aware of what I'm doing. I make sure that I'm showing them how to do behavior management and hands-on science and math. If I expect the students to do something then I must model that for them. (Conrath, 1997, p. 91)

Similarly, another teacher in a northeastern, public, urban PDS said:

> I think it was good for me to be observed by the interns. It made my teaching better because I knew there was another adult in the classroom that was watching me and talking about me later, so it made me really want to get prepared even more, and it develops good habits. When someone is there watching you everyday, then you're a lot more critical. (Miller & Silvernail, 1994, p. 43)

Teachers that met together as a result of the PDS partnership developed support networks. Taking charge of their own professional development furthered the continual learning goal of the PDS. A participant in a western, public, urban PDS stated:

> At a recent all-day meeting, PDS teachers led the session focused on authentic assessment. They prepared exhibits and engaged PDS members in discussion of ways to have children demonstrate what they are learning. This served as an example of teachers taking charge of staff development time, making key decisions about what they want to study. (Lemlech et al., 1994, p. 166)

Another professional development meeting facilitated the feeling of increased professional development and led to long-term teacher empowerment activities. A member of a northeastern, public, suburban PDS commented, "At the end of the summer institute, teachers requested follow-up activities. A monthly seminar is now in place as is a regular cooperative teacher newsletter" (Miller & Silvernail, 1994, p. 41). The growth of the teachers involved in a PDS encouraged the pursuit of interest in PDS activities. This uninvolved teacher in a western, public, urban PDS recognized:

> All along the teachers were going to in-services, supposedly to become better teachers, to learn different methods or to better their methods. We didn't understand that. Now I kind of wish I had taken time out for the in-services even if it meant time away from my students. All those teachers seem to have such better teaching techniques than I or as they began to look at teaching differently. (Snyder & Goldman, 1997, p. 251)

The feeling that PDSs increase the professional development of teachers facilitated the collaboration process. Active participants were encouraged to continue PDS work and others were motivated to become future mentors or participants.

SUMMARY

The facilitators of the collaboration process in this study were identified as: (a) obtaining resources from outside organizations, (b) administrative support, (c) taking time to establish a shared vision, and (d) the feeling that a PDS increases professional development. The case studies in this meta-ethnography identified these facilitators as critical and necessary to the collaboration process in PDSs. The following table, Table 2, summarized the identified facilitators and the number of cases that were coded as facilitators of the collaboration process.

The identified facilitators in this study were clearly identified in the case studies as incidents or happenings that helped the collaboration process in PDSs. It is notable that each of the case studies that identified these facilitators was identified as a study that was methodologically sound. These identified facilitators are identified across case studies and in rigorous qualitative case studies.

Table 2. Facilitators of the Collaboration Process in PDSs

Identified Facilitator	*Description of the Facilitator*	*Number and Percent of Cases Identifying the Facilitator*
Obtaining resources from outside organizations	In order to fund the PDS, many case studies utilized outside funding sources.	10 of 20 (50%)
Administrative support	When deans of colleges of education and the school administration supported the PDS, the collaboration process was aided.	7 of 20 (35%)
Taking the time to establish a shared vision	PDSs identified the benefit of taking the time to establish common goals and a shared vision in the PDS.	16 of 20 (80%)
Feeling that a PDS increases professional development	Teachers identified the benefit of working with university students and faculty members and were encouraged to continue the PDS process.	9 of 20 (45%)

BARRIERS

Another research question of this study was: "What are the barriers to the collaboration process in PDSs?" This study identified and analyzed the barriers to the collaboration process in PDSs in 20 case studies. The barriers that were identified in this study will be presented in descending order from the most frequently cited barrier to the least cited barrier. The barriers to the collaboration process identified in this study were: (a) time, (b) lack of rewards, (c) the change process, (d) district mandates, and (e) space. Each barrier will be presented with examples from the case studies.

Time

In this study, the most frequently cited barrier to the collaboration process in PDSs was the barrier of time. Both university faculty members and school faculty members identified limited time as a barrier to the collaboration process. Time became a barrier in PDSs because teachers and professors have busy schedules and because the university and the school have different schedules.

Time is a barrier in the collaboration process for teachers because of their complex roles. The roles of teachers and teacher educators demand intensive time commitments that leave little time for collaboration. The following examples exemplify the intensive roles of PDS members. One southeastern, public, urban, elementary PDS member stated:

> Follow-up meetings have been difficult to arrange due to overloaded work schedules and the lack of time. As one teacher commented about the lack of site-level progress, "We have just not been able to find the time for a group of teachers, the university faculty member, and the principal to meet." (Berry & Catoe, 1994, p. 180)

Another member from a southeastern, public, suburban PDS agreed and gave examples of why time is so scarce for teachers:

> Because of the number of outside demands, such as coaching, tutoring, or advising clubs, one of the major problems for the team was finding time to meet. Meetings were held before and after school, often with individual members absent or leaving halfway through discussions. (Clift et al., 1995, p. 72)

University faculty members also experienced time as a barrier to their work. The time intensive nature of PDS work demanded that the faculty members restructure their time to be able to work with teachers. One member of a Midwestern, public, urban PDS reported:

> Professors, too, have time limitations. For example, they are allotted a prescribed amount of time (i.e., access to the students' time) for each course and field experience. While professors may have a more flexible schedule than that of teacher instructors, the re-structuring of their duties that result from their participation in the PDS generally increases the time and energy required to deliver classes and supervise field experiences. (Rose, 1994, p. 490)

Another member from the same PDS agreed, "As the PDS became a part of each professor's new duties, this meant additional travel time and energy with, of course, no additional time added to one's day" (Rose, 1994, p. 532).

Struggling to do collaborative work while also trying to manage all the other intensive duties in a school can lead individuals to feel tired and drained. One member of a western, public, urban PDS commented:

> Lack of time, as always, inhibited the relationship. Realistically there just aren't enough hours in a day to plan lessons, gather materials, teach, advise student teachers, deal with children's special problems, meet with their parents, attend PDS meetings and take on a myriad of PDS assignments. Your energy wanes after a while. Then your will weakens and you start feeling frustrated and defensive about all the things you haven't done. You forget all the good things you have accomplished. (Snyder & Goldman, 1997, p. 242)

In addition to the busy schedules of professors and teachers, commute times and calendars also interfered with quality time to collaborate. One university liaison that traveled to three Midwestern secondary PDSs stated:

> Because three of the four schools are located in other cities, 30–40 minutes from the campus, driving time has become an issue. As one liaison said, "Driving is stressful as well as time consuming." (Breck, 1988, p. 155)

Schools and universities also manage their time differently. Employees in the schools have a different calendar than the university. Some schools even have different calendars for different teachers. Through conflicting schedules, time for collaboration is diminished. A PDS member in a west coast, public, urban school identified the problem of coordinating schedules. She reported:

> The consequence of school site teachers' different calendar schedules is that some decisions need to be reconsidered since all teachers are never in attendance at the same staff development sessions. Another consequence of the year round calendar track system is that not all tracks synchronize with the university calendar. (Lemlech et al., 1994, p. 166)

Time can be a significant barrier to the collaboration process in PDSs. In order to have a PDS, members must be able to communicate and make joint decisions. The intensity of the role of school-based faculty members limits the available time to collaborate. In addition, long commutes and different schedules and calendars complicate the process of finding time to work together. A Midwestern, public, urban PDS member stated, "I think one of the biggest myths about collaboration is that it cuts down on time. It doesn't. It increases it..." (McKendall, 1998, p. 100).

Lack of Rewards

The second most commonly identified barrier to the collaboration process in PDSs is the lack of rewards for PDS work. Both university professors and school faculty generally do not receive rewards or recognition from their separate organizations for PDS work. University faculty struggled with the demands of the university and publishing while school faculty struggled with little compensation or planning time awarded to them as a result of their increased duties. This section identifies the lack of rewards for university faculty followed by the identified lack of rewards for school faculty.

University faculty members, particularly those without tenure, are generally not rewarded for their participation in PDSs (Ginsberg & Rhodes, 2002). Faculty who do work with PDSs dedicate much of their time to the school. This leads to complications in the university structure. A member of a southeastern, public, suburban, elementary PDS commented:

> To accomplish what they are doing, these university faculty need to be on site two to three times per week. For several faculty, their traditional academic writing has suffered and college committee work has been somewhat neglected. If she did not have tenure, the school site efforts would not be so forthcoming. (Berry & Catoe, 1994, p. 194)

Another member from the Midwest, public, urban university agreed. He stated:

> The career reward structure seems to be more of a problem for university faculty than for public school faculty. When discussing this study and or my involvement with the PDS initiative, several junior faculty expressed their reluctance to become involved with the PDS movement because they saw it as only 'counting as service' rather than contributing to the more heavily weighted component of tenure, research. (Breck, 1988, p. 156)

In one case, a university faculty member disagreed with the hesitancy of faculty members to be involved with PDSs. She emphasized that PDS work leads to better research. She advocated the rewards of the involvement of university faculty:

> I really think that junior faculty members probably ought to be out there as liaisons because the opportunities for research are enormous ... junior faculty should be there because they can do their research there. Their research would be enhanced, I think. (Breck, 1988, p. 159)

Schools also have difficulty attaining rewards for their work in PDSs. Some teachers in this study were given extra planning time or compensation for their time. Others participated in PDSs without being rewarded. In a case study of a western, public, urban PDS the author noted:

> In schools, teachers and administrators are not rewarded. They need time, recognition and resources for engaging in inquiry and school-based research. (Button, Ponticell, & Johnson, 1996, p. 4)

Recognition of teacher effort is necessary for morale. A member of a Midwestern, public, rural PDS stated:

> Though financial compensation is a relatively weak reward for innovation, it does provide an effective means for organizations to express recognition and was an important psychological issue in the initiation of the partnership. (Conrath, 1997, p. 106)

Both university and school faculty encountered the barrier of rewards in their PDS work. The many universities that do not credit faculty members seeking tenure for PDS work and school systems generally do not give teachers extra time or money for their contributions. The nature of PDS work is complex and intensive. Without recognition or compensation to individuals, PDS work can become a burden to involved individuals in universities or schools.

Change

Another barrier identified in this study was the process of change. PDSs form new organizations in schools. This process of forming new organizations forces change to occur. These case studies identified the slow pace of the change process as a barrier to the collaboration process. The following examples show how the slow process of change affected PDSs in this study. One PDS member from a rural area in the Midwest stated:

> The gradual nature of program change was expressed another way by one of the interviewees who was frustrated by the slow pace of innovation when he said, "There are not leaps ... we're always crawling. It's so hard to change. Everything is so political..." (Conrath, 1997, p. 84)

A member of a northeastern, public, urban PDS concurred that the change process is difficult. Summarizing the process of change well, he commented:

> People don't like to change. They get used to something and that's the way it's going to be. You're used to milk tasting one way and if it's sour milk and someone tells you that it is healthier for you, you are going to have a lot of hostility and skepticism and take some time to accept that. You always feel that you are always going to get the short end of the stick. (Perkins, 1991, p. 91)

Patience is needed during the slow process of PDS work. The effort and time do not produce immediate benefits. From the northeastern in public, urban middle school, one member stated:

> Change was difficult and continues to be so. The PDS project has not changed the world of teacher education or professionalized the career of teaching. It has taken much time, much energy, and it has not always been fun. (Snyder, 1994, p. 124)

A frequently identified theme in the selected case studies described the process of change as a barrier to the collaboration process. The case studies in this study frequently identified the frustratingly slow pace of the change process as a barrier to their PDS work.

District Mandates

Another frequently identified barrier to the collaboration process in PDSs is district mandates. Often district mandates compete with the goals of the PDS and with the time dedicated to the collaboration process. Districts and states mandate standardized testing and teacher evaluations that require focused teacher attention. A member of a PDS in a public, suburban PDS in the southeast region said:

> Without question, the PDS educators are pressured by the state and district mandated high stakes basic skills, standardized achievement testing ... the issue here is not just hard working educators doing too much, but also competing policy initiatives that do not share a common view of teaching. (Berry & Catoe, 1994, p. 185)

Many mandates stress basic skills while universities often stress constructivist theories about learning. In addition, some districts in this study required different teaching competencies than were being utilized in the PDS. This affects the PDS as student teachers must adhere to the district teacher evaluation system rather than to the suggestions of their university supervisors. A PDS participant complained:

> The state-mandated beginning teacher evaluation system (with its requirement of demonstrating 51 discreet, teaching behaviors in a 50 minute or less class period) is an aggravation and, to some extent, an anathema to the kinds of teaching and learning in the university elementary program. (Berry & Catoe, 1994, p. 197)

In one PDS the principal attempted to shield her teachers from other district mandates. Trying to stay focused on the PDS effort the principal risked her job for the teachers. One member of this southeastern, public, urban PDS said, "This is such a large district where state and local mandates are frequent. In this case, the principal has attempted to buffer the outside mandates" (Clift et al., 1995, p. 60).

Another way that district and state mandates were a barrier to the collaboration is through their control of the finances. When teachers or university faculty members suggest PDS changes, the district and state have the power to support the plan or not. In a western, public, urban PDS, members proposed a system of building more planning time for teachers. A PDS member reported:

> This plan to free the project teachers from their lunch period on is currently one of the issues at our PDS. However, to date, the school district has not

> consented to the plan, though we are hopeful that it eventually will. (Lemlech et al., 1994, p. 167)

District mandates in this case study were reported to be a barrier to the collaboration process in PDSs. Mandates often competed with the goals and philosophies of the PDS and kept the teachers from having the time to collaborate.

Space

A final identified barrier to the collaboration process in PDSs was the issue of space. The case studies that identified space as an issue in the partnership usually did so in the initial phase of the collaboration process. Schools and universities had to negotiate where classes and meetings were to be held and where the university liaisons could work. Often the school administrator would solve the issue of finding space for the partnership, while other times the university offered its facilities for meetings. In one southeastern, public, suburban PDS, teachers created their own place:

> Since space was at a premium, this was no easy feat. In November they proudly opened a teacher workroom, which they had decorated and furnished on their own time with limited financial support. (Clift et al., 1995, p. 74)

A PDS member in a Midwestern, public, urban partnership agreed and reported:

> Early on one of our problems was locating space in the building where we could hold classes, meet with groups of teachers, and identify a work area for the liaisons. (Pasch & Pugach, 1990, p. 9)

One PDS had the luxury of constructing its own building. In their consideration of space the leadership team was able to plan for collaboration. The author stated:

> Space was a big concern—planning areas, removable walls, two way mirrors, office space for faculty from the university … in total we made a list of 17 architectural elements deemed essential. (Slater, 1996, p. 9)

Another case study did not solve the problem of finding a space for the partnership and the effects were detrimental. Telling of their PDS problems, a PDS member in a northeastern, public, urban PDS said:

> Aside from the effects of what one administrator called "chaotically cramming kids into cubbies and scheduling nightmares," the size of the school affected

> the project in that there was no room at the school for the project coordinator. His physical location exacerbated the issue of just whose project this was while hindering communication with the school site. (Snyder, 1994, p. 103)

The issue of space was identified early in the PDS collaboration process as a barrier. While many solved this barrier through creating a place for all, at least one partnership was negatively effected over the long run because of the lack of space.

Summary

The barriers to the collaboration process in PDSs in this study were identified as: (a) time, (b) lack of rewards, (c) the change process, (d) district mandates, and (e) space. The following table, Table 3, summarized the identified barriers.

Table 3. Barriers to the Collaboration Process in PDSs

Identified Barrier	*Description of the Barrier*	*Number and Percentage of Cases Identifying the Barrier*
Time	Both university and school faculty identified limited time as an impediment to collaboration	17 of 20 (85%)
Lack of rewards	University faculty members do not usually benefit in the tenure process working in PDSs. In addition, school faculty are doing more work without compensation or recognition.	13 of 20 (65%)
The change process	The change process is slow and frustrates PDS participants.	12 of 20 (60%)
District mandates	School districts mandate standardized testing and funding arrangements that interfere with PDSs.	6 of 20 (30%)
Space	Especially in the initial stages of the partnership, the lack of space to meet impedes collaboration.	6 of 20 (30%)

The identified barriers in this study can be found in the conceptual literature about PDSs; however, these barriers were identified in studies that were evaluated methodologically. This study illustrates the prevalence of these barriers across this sample of case studies. Additionally, these barriers were clearly identified in the qualitative studies, and the identified barriers were not affected by the demographics of the PDS in this study.

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RECOMMENDATIONS

The following four recommendations are given to practitioners in schools and in teacher education institutions so that the PDS reform movement can be better understood and sustained. The recommendations, based upon the findings of this study, are categorized into: (1) beginning a PDS, and (2) sustaining a PDS.

Recommendation 1: Beginning a PDS

The first recommendation for practitioners in PDSs is to establish a PDS with a school and a university where there is administrative support for the partnership. The findings of this study were that the PDSs in this sample identified the support of deans and administrators outside the PDS as facilitators to the collaboration process. Deans of colleges of education and school administrators must support the PDS if the PDS is to operate and be sustained. One way deans and administrators outside of the PDS can show their support is through creating a reward structure for university and school faculty involved in the PDS. An identified barrier in this study, lack of reward, suggests that participation is limited in PDSs because neither universities nor school systems reward their PDS participants. The tenure system in universities needs to recognize PDS work as viable and worthy of merit. In addition, teachers who are giving their time to train other teachers need to be compensated and recognized for their contributions to the teaching profession. Another way deans and outside administrators can show their administrative support for the PDS is through evaluating their district's mandates and their effects on the PDS. District mandates for standardized testing and teacher evaluation were identified in this study as a barrier to the collaboration process. Teachers had so many demands placed upon them that the district mandates interfered with the time and energy they could devote to reforming their practices and helping other new teachers. Administrative support is needed in PDSs. This support could be manifested in establishing a reward system and in eliminating competing district mandates.

Recommendation 2: Beginning a PDS

The second recommendation for practitioners in PDSs is to utilize outside resources to sustain funding. The findings of this study identified the utilization of outside resources as facilitators to the collaboration process in PDSs. When beginning a partnership it is imperative to secure adequate funding to cover the costs of the PDS. A plan for securing funding initially and longitudinally should be established. The case studies in this meta-ethnography reported success in writing grants and partnering with other organizations to secure funding.

Recommendation 3: Beginning a PDS

The third recommendation for practitioners in PDSs is to take the time needed to build a shared vision of the PDS in the beginning of the partnership. Time is a barrier to the collaboration process in PDSs for there is often limited time for university faculty members, school administrators, and teachers to meet, plan, and discuss PDS issues. However, a facilitator to the collaboration process in PDSs in this study was taking the time to establish a shared vision. PDSs in this meta-ethnography reported the benefits of making time for vision building and for goal setting, finding that PDSs that developed consensus and shared goals felt positive about their collaborative efforts. PDS participants need to understand, before beginning the partnership, that time is scarce and that special arrangements will need to be made to conduct meetings, retreats, or seminars that build consensus and goals for the PDS. Time is a precious commodity, but taking the time to establish shared goals is a necessity in PDS development.

Recommendation 4: Sustaining a PDS

The fourth recommendation for practitioners in PDSs is to encourage teachers and university faculty to build their skills and participate in their own professional development. In this study, teachers who enjoyed learning from university students felt encouraged about the partnership and were more eager to participate in PDSs. An identified facilitator across the case studies was the feeling that a PDS increases professional development. University faculty and teachers should work together to develop meaningful professional development activities for each other. Professional development activities were well received when the teachers helped to direct the activities and meetings.

Recommendation 5: Sustaining a PDS

The fifth and final recommendation for practitioners in PDSs, based upon the findings of this study, is to have informal meetings and gatherings to establish trust and camaraderie in the PDS. In this study it was noted that special meetings such as brown bag lunches, retreats, dinners, conferences and informal dinners assisted the trust-building process in PDSs. Trust building activities among all members of the PDS needs to occur and can be best facilitated through informal meetings and social gatherings. It is recommended that PDS members consistently meet informally in order to build strong relationships.

CONCLUSION

This study identified the facilitators of and the barriers to the collaboration process in PDSs. Prevalent themes about the facilitators of obtaining outside resources, administrative support, taking time to establish a vision about the goals of the PDS, and feelings that a PDS increases professional development were identified and discussed. The barriers of time, lack of rewards, the change process, district mandates, and space issues were also identified and discussed. The identified facilitators of the collaboration process and the identified barriers to the collaboration process were identified in this study from methodologically screened case studies and were emergent themes that were prevalent across case studies.

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NOTES ON CONTRIBUTORS

Daniel J. Boudah is Assistant Professor with general and special education program responsibilities in the School of Education at the University of North Carolina, Chapel Hill. Dr. Boudah's continuing professional interests include programs and services for low-achieving students and students with mild disabilities, learning and instructional strategies, teacher collaboration, and systems change.

John Brantley is Professor in the School Psychology Program in the School of Education at the University of North Carolina at Chapel Hill. During this collaboration, he served as the Coordinator of the School Psychology Program.

Myrna D. Cohen is on the faculty of the Department of Urban Education at the University of Houston-Downtown and serves as the Director of the Center for Professional Development and Teaching. She is the president of Texas Directors of Field Experience, is an officer and board member of the Consortium of State Organizations of Texas Teacher Educators (CSOTTE), and has served as co-editor of the Texas Teacher Education Forum. Dr. Cohen served as Director of Field Experiences and Coordinator of Secondary Education in her previous position at the University of Houston. Her areas of interest include teacher education, second language education, and student-centered strategies such as cooperative learning. In addition to university-level teaching, Dr. Cohen has had 15 years of classroom teaching experience encompassing grades 2-12.

Dorothy Valcarcel Craig (dvcraig@mtsu.edu) is Associate Professor of education in the Department of Educational Leadership at Middle Tennessee

State University. Dr. Craig holds an Ed.D in Curriculum & Instruction with an emphasis in Educational Technology. She teaches onsite, online, and web-enhanced courses in foundations, Educational Psychology, ESL, and children's literature. Current research pursuits include exploring the implications of dialog and teleconferencing in the high school classroom; perceptions of diversity in public schools; PDS and clinical school site partnerships; and follow-up studies examining teleresearch, Internet utilization, and teacher action research. Results of her research have appeared in the *Journal of Educational Technology Systems, Childhood Education Journal*, the *Journal of Online Learning, Science and Children, The Science Teacher*, and *Education Issues.*

Nancy Fichtman Dana is Associate Professor of Education at the Pennsylvania State University. Her areas of interest include school-university collaboration, Professional Development Schools, and teacher inquiry.

John Fischetti is Professor and Chair in the Department of Specialty Studies at the University of North Carolina at Wilmington. His interests lie in secondary teacher education; curriculum, instruction and assessment; Professional Development Schools; educational technology and education and research in teaching and learning.

John P. Galassi is Director of the Research Triangle Professional Development Schools Partnership and professor and Coordinator of the School Counseling Program in the School of Education at the University of North Carolina at Chapel Hill.

Gay Goodman joined the University of Houston faculty twenty-eight years ago after receiving her doctorate from the University of Iowa. She is Professor in the Department of Educational Psychology, assigned to the Special Education Program Area. Classroom management is her area of expertise. She has served as a cluster PDS coordinator since the inception of the PUMA Program, a site-based teacher education program for all elementary and middle school students at the University of Houston.

Irma Guadarrama is Associate Professor in the Department of Curriculum and Instruction in the College of Education at the University of Houston. Dr. Guadarrama teaches and conducts research in the areas of language education, cultural diversity, and teacher education. Her research in professional development schools focuses on school reform and its impact on schools with minority student populations from diverse language, cultural, and SES backgrounds. She was the recipient of the Teaching Excellence

Award from the College of Education and has conducted research and presented research papers in Mexico.

Karen M. Higgins is Associate Professor and Director of Teacher Education in the School of Education at Oregon State University. Her research interests include university/public school collaboration, research epistemologies, the teaching and learning of mathematics, and gender in education. She was a middle school mathematics teacher for thirteen years prior to her university work.

Ann Larson is Assistant Professor in the Department of Teaching and Learning at the University of Louisville. Her interests are in English/language arts education; educational technology; curriculum, instruction and assessment; Professional Development Schools; moral education and research in teaching and learning.

Barbara B. Levin is Associate Professor in the Department of Curriculum and Instruction at the University of North Carolina at Greensboro. Prior to earning her Ph.D. at UC-Berkeley in 1993 she was an elementary school teacher in Wisconsin for 17 years. Her research interests include the longitudinal development of teachers' pedagogical thinking, case-based methods and problem-based learning, and the integration of technology in teacher education. At UNCG, Dr. Levin works with teams of elementary education majors in a Paideia-focused Professional Development School and teaches social studies methods to undergraduates. She also teaches elementary curriculum, educational psychology, classroom management, and technology courses at the Master's level. At the Doctoral level she teaches courses in cognition and motivation and qualitative research methods. Dr. Levin can be reached at the School of Education, 1000 Spring Garden Street, UNCG, Greensboro, NC, 27402-6171 or by e-mail at Barbara_Levin@uncg.edu.

Norene Vail Lowery is Assistant Professor of Mathematics Education in the Curriculum & Instruction Department of the College of Education at the University of Houston, Houston, Texas. Research interests include preservice and inservice teacher education, assessment, mathematical representations, and the integration of mathematics and science education.

William Malloy is Associate Professor of Educational Leadership and Special Education at the University of North Carolina at Chapel Hill. He has been a former teacher, Director of Special Education, and Deputy Superintendent. Dr. Malloy's research interests include school reform, student resiliency, diversity, and leadership behavior.

Corinne Mantle-Bromley has studied school-university collaboration since she helped to design Colorado State University's first Professional Development School in 1993. In the fall of 2000, she moved to Seattle to serve as the executive vice president of the Institute for Educational Inquiry (founded by John I. Goodlad and colleagues in 1992). She also serves as a research professor with the University of Washington and with the Center for Educational Renewal.

Barbara Myers, who was trained as both a school counselor and a school social worker at the University of North Carolina at Chapel Hill, is coordinator of the Intercede to Succeed Program for the Chatham County Schools and a clinical instructor in the School of Education at the University of North Carolina at Chapel Hill.

Janice Nath is a professor at the University of Houston–Downtown in the Urban Education Department. She has been actively involved in field-based teacher education for many years, formerly serving as the chair and program chair of the AERA PDRS SIG (American Education Research Association Professional Development School Research Special Interest Group). She served as the Coordinator for Elementary Education, Director of the PUMA TRACS Program for Post Baccalaureate Teacher Certification, Assistant Director of the Internship Program, and she headed a Professional Development School (PDS) site for many years in her recent position at the University of Houston–Main Campus. She is co-editor of *Becoming a Teacher* in Texas on the professional development aspect of Texas teacher certification for elementary and secondary education.

Jon Ramsey is Associate Professor in Science Education in the College of Education at the University of Houston where he serves as Director of Elementary Teacher Education. His research interests include science environmental education. Dr. Ramsey teaches science education courses that focus on teaching methods, the curriculum, and issues and trends. He was recently honored with the research award from the National North American Association for Environmental Education.

Elisabeth Hess Rice is Assistant Professor at the George Washington University. She is a graduate of a Professional Development School (PDS) that specialized in teaching students with emotional and behavioral disabilities. In addition, she has served as a cooperating teacher in a PDS as well as a PDS university supervisor. Dr. Rice's research interests include effective interventions with students with emotional and behavioral disabilities, Life Space Crisis Intervention, and the collaboration process in PDSs.

Gary Shaffer is Associate Professor in the School of Social Work at the University of North Carolina at Chapel Hill and serves as the Coordinator of the School Social Work Program and the Director of Field Education.

Diane Yendol Silva is Assistant Professor of Education at the University of Florida. Her areas of interest include mentoring, Professional Development Schools, and social studies education.

Zhixin Su is Professor of Education in the Department of Educational Leadership and Policy Studies and Director of the China Institute at California State University, Northridge. Her major areas of research include teacher education, educational policy studies, comparative and international education. In recent years, she has published research papers in ATE's *Teacher Education Yearbooks, American Journal of Education, Oxford Review of Education, Teachers College Record, Teaching and Teacher Education, Journal of Education for Teaching, International Review of Education, Phi Delta Kappan, Journal of Research on Education and Development, Comparative Education,* and *Urban Education.*

Margaret Weiss is Assistant Professor in Special Education and Middle Grades at the University of North Carolina at Chapel Hill. Dr. Weiss's research areas include instructional strategies for students with disabilities, collaboration among professionals and parents who work with students with disabilities, uses of curriculum-based measurement, and transitions to and from middle schools.

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